Macmillan

Mathematics

Pupil's book

Paul Broadbent

Contents

BLOCK A Numbers and addition

BLOCK B Number operations

BLOCK C Equations, fractions and time

Unit 1 Numbers to 100

Counting to 20

1	2	3	4	5
one	two	three	four	five

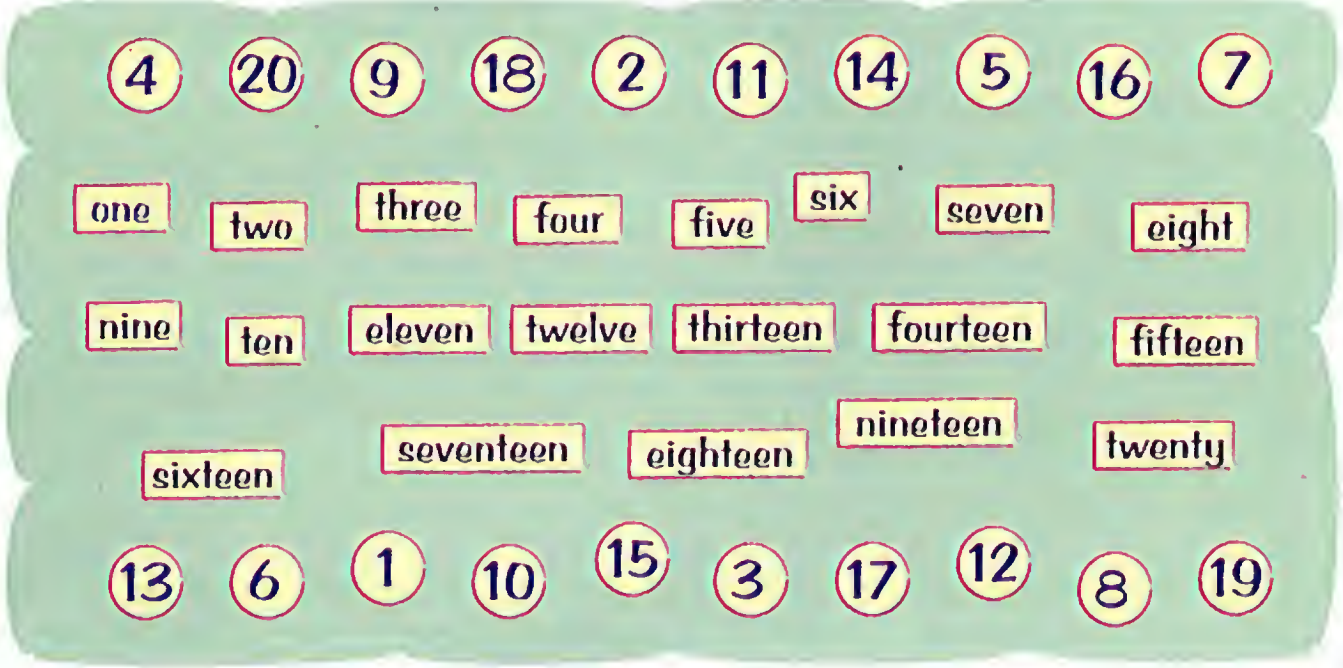
6	7	8	9	10
six	seven	eight	nine	ten

11	12	13	14	15
eleven	twelve	thirteen	fourteen	fifteen

16	17	18	19	20
sixteen	seventeen	eighteen	nineteen	twenty

These are the numbers to 20. Try to learn the order of the numbers.

1 Join the numbers to the matching words.



2 Write these numbers in order.

a) 8 12 11 10 9

b) 20 17 18 16 19

c) 6 7 4 8 5

d) 17 13 15 14 16

e) 5 3 2 4 1

f) 11 13 10 14 12

3 Write the missing numbers.

a) 3 ☐ ☐ 6 7

b) 14 15 ☐ ☐ 18

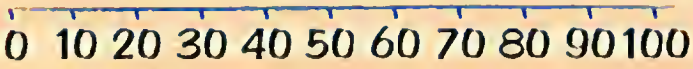
c) 5 6 7 ☐ ☐

d) ☐ ☐ 14 15 16

e) 6 ☐ ☐ 9 10

f) 9 ☐ 11 ☐ 13

Counting in tens



0	10	20	30	40	50
zero	ten	twenty	thirty	forty	fifty

60	70	80	90	100
sixty	seventy	eighty	ninety	one hundred

Use the tens to help count to 100. 100 is the number after 99.

1 Write the next two numbers.

a) 0 10 20 30 ☐ ☐

b) 50 60 70 80 ☐ ☐

c) 30 40 50 60 ☐ ☐

d) 20 30 40 50 ☐ ☐

e) 40 50 60 70 ☐ ☐

f) 10 20 30 40 ☐ ☐

2 Write the missing numbers.

a) 10 ☐ 30 ☐ 50 60

b) 40 50 ☐ 70 80 ☐

c) ☐ ☐ ☐ 60 70 80

d) 0 10 ☐ ☐ ☐ 50

e) 20 30 ☐ 50 ☐ ☐

f) ☐ 50 60 ☐ ☐ 90

3 Write the missing numbers.

a) 0 ☐ 20 30 ☐ 50

b) 0 10 ☐ 30 40 ☐

c) 10 20 ☐ 40 ☐ 60

d) 30 40 50 ☐ ☐ 80

e) 20 ☐ ☐ 50 60 70

f) 0 10 ☐ ☐ 40 50

Try this

Count back in tens. Write the next number.

a) 50 → 40 → 30 → 20 → ☐

b) 100 → 90 → 80 → 70 → ☐

c) 80 → 70 → 60 → 50 → ☐

d) 60 → 50 → 40 → 30 → ☐

Counting to 100

Use this 100-square to help you read the numbers to 100.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

1 Write each set of numbers in order.

a) 38 35 39 37 36

b) 10 9 13 12 11

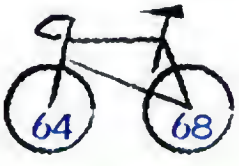
c) 93 90 92 94 91

d) 76 80 77 79 78

e) 48 52 51 49 50

f) 24 25 22 26 23

2 Write the larger number in each pair.

a) 

b) 

c) 

d) 

e) 

f) 

3 Write these numbers as words.

19 → _ _ ☐ _ _ _ _ _

13 → _ _ ☐ _ _ _ _ _

17 → _ _ _ _ ☐ _ _ _ _

11 → _ _ ☐ _ _ _

80 → _ _ _ _ ☐ _

42 → _ _ _ _ ☐ - _ _ _

64 → _ _ _ _ _ - _ ☐ _ _

75 → _ _ _ _ ☐ _ _ - _ _ _ _

58 → _ _ _ _ _ - ☐ _ _ _ _

What is the hidden number in the boxes?

Try this

Make different 2-digit numbers using only these three digits.
Write the numbers you have made in order, starting with the smallest.

Example

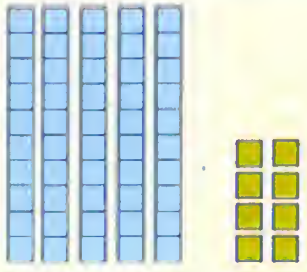
Smallest 23 26 32 36 62 63 Largest

Place value

Example 1

58 = 50 + 8

tens	units
5	8



The 5 stands for 50

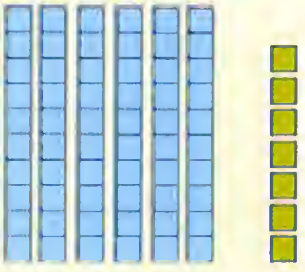
The 8 stands for 8

58 is fifty-eight

Example 2

67 = 60 + 7

tens	units
6	7



The 6 stands for 60

The 7 stands for 7

67 is sixty-seven

1 Write these words as numbers.

a) forty-three **b)** ninety-six **c)** fifty-two

d) eighty-seven **e)** twenty-four **f)** sixty-nine

2 Write these numbers as words.

a) 71 **b)** 38 **c)** 59

d) 95 **e)** 22 **f)** 87

3 Write each number as tens and ones.

Example 89 → 80 + 9

a) 47 → ☐ + ☐

b) 91 → ☐ + ☐

c) 75 → ☐ + ☐

d) 82 → ☐ + ☐

e) 66 → ☐ + ☐

f) 58 → ☐ + ☐

4 Write the missing numbers.

a)
$$\begin{array}{r} 2\ 0 \\ +\quad 1 \\ \hline \square\ \square \\ \hline \end{array}$$

b)
$$\begin{array}{r} 3\ 0 \\ +\quad \square \\ \hline 3\ 6 \\ \hline \end{array}$$

c)
$$\begin{array}{r} \square\ \square \\ +\quad 9 \\ \hline 4\ 9 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 8\ 0 \\ +\quad 2 \\ \hline \square\ \square \\ \hline \end{array}$$

e)
$$\begin{array}{r} 7\ 0 \\ +\quad \square \\ \hline 7\ 4 \\ \hline \end{array}$$

f)
$$\begin{array}{r} \square\ \square \\ +\quad 7 \\ \hline 5\ 7 \\ \hline \end{array}$$

g) 30 + ☐ = 31

h) 80 + 5 = ☐☐

i) 60 + ☐ = 67

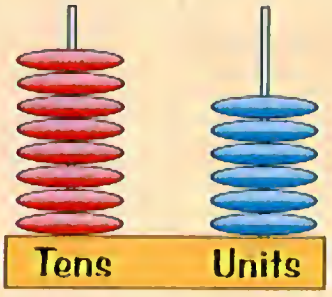
j) ☐☐ + 8 = 18

k) 90 + 2 = ☐☐

l) ☐☐ + 4 = 74

Using an abacus

This abacus shows the number 86.

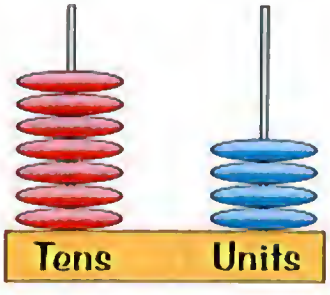


8 tens 6 units

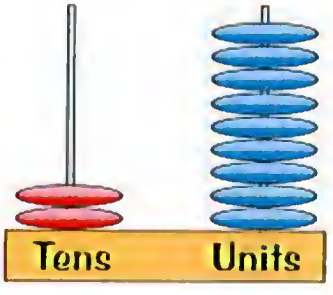
80 + 6 = 86

1 Write the number shown on each abacus.

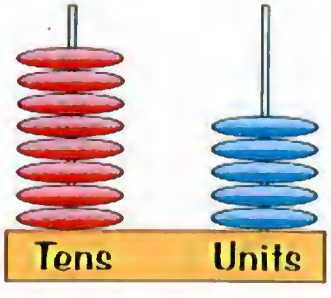
a)



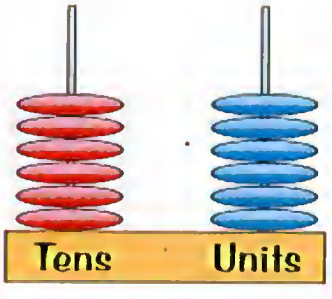
b)



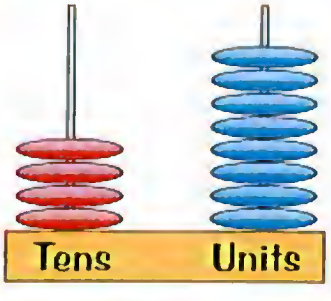
c)



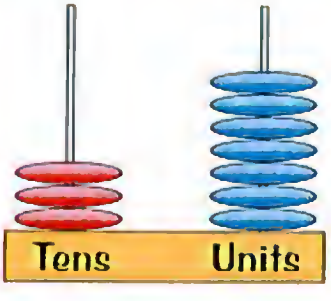
d)



e)

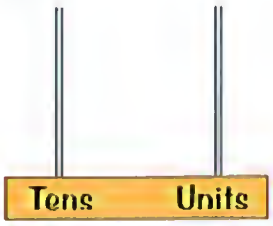


f)

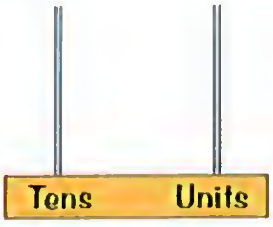


2 Draw the correct numbers of beads to show these numbers.

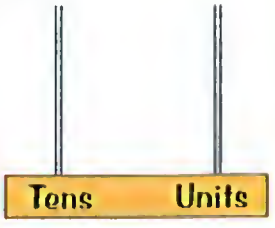
a) 35



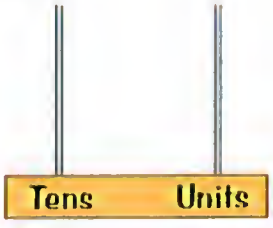
b) 54



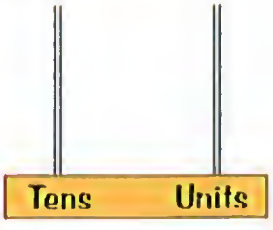
c) 27



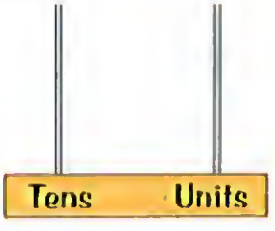
d) 86



e) 13

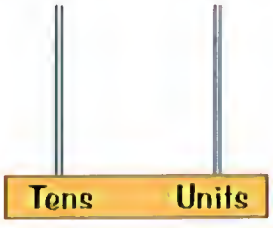


f) 68

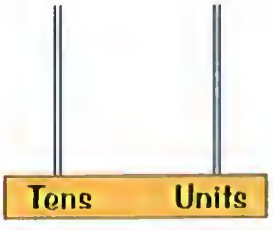


3 Draw beads on each abacus to make these numbers.

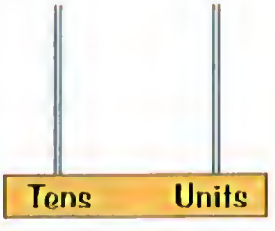
a) 24



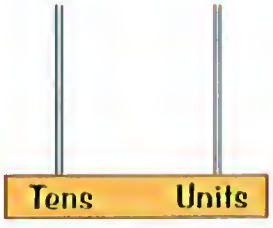
b) 16



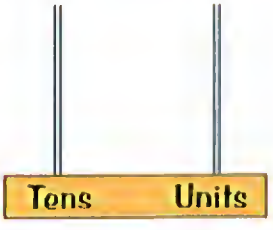
c) 32



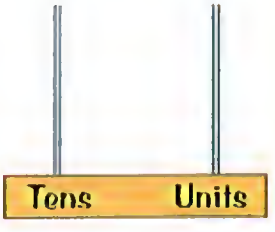
d) 51



e) 43



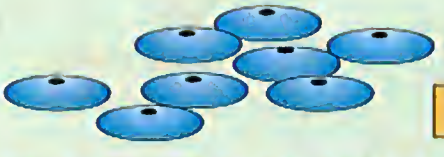
f) 65



Assessment

Use 8 beads on an abacus.
How many different numbers can you make?

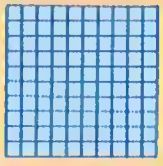
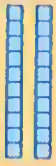
Write the numbers in a list in order.



Unit 2 Numbers to 999

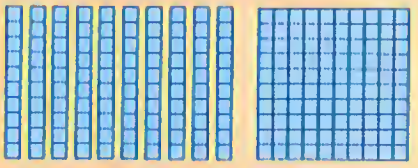
Numbers to 200

These show hundreds, tens and units.


1 hundred 2 tens 4 units

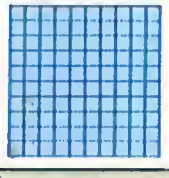
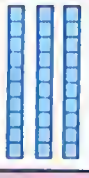
100 + 20 + 4

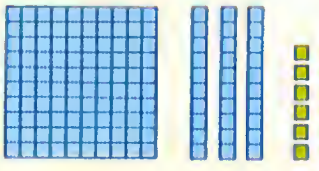


Remember 10 tens make 1 hundred.

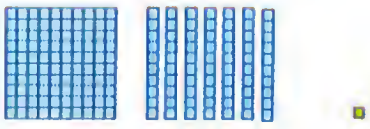
1 Write the numbers shown on each mat.

Example

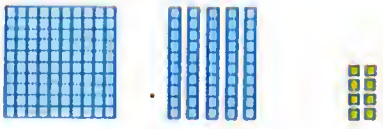
Hundreds	Tens	Units
		
1	3	6



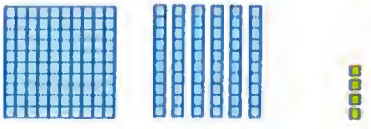
100 + 30 + 6 = 136

a) 

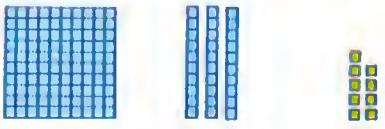
1 + 7 + 1 = _____

b) 

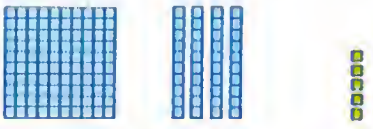
1 + 5 + 8 = _____

c) 

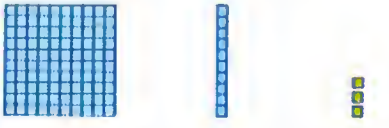
_____ + _____ + _____ = _____

d) 

_____ + _____ + _____ = _____

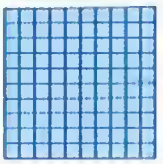
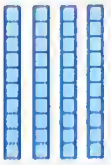
e) 

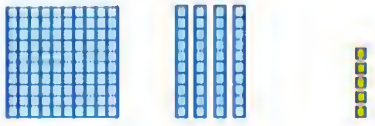
_____ + _____ + _____ = _____

f) 

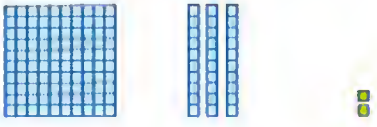
_____ + _____ + _____ = _____

2 Write the numbers shown on each mat.

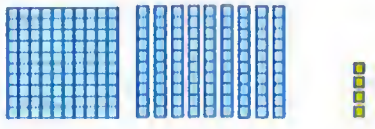
Hundreds	Tens	Units
		

a) 

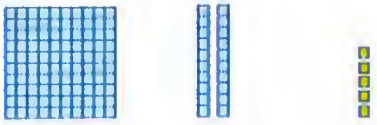
_____ + _____ + _____ = _____

b) 

_____ + _____ + _____ = _____

c) 

_____ + _____ + _____ = _____

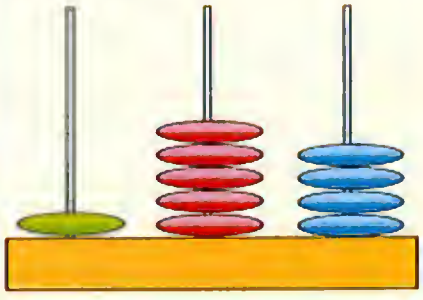
d) 

_____ + _____ + _____ = _____

Try this

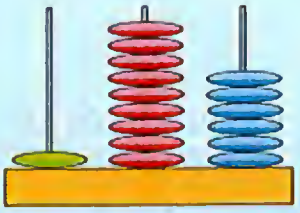
Write the numbers for each abacus.

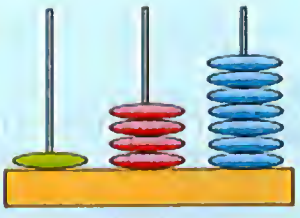
Example

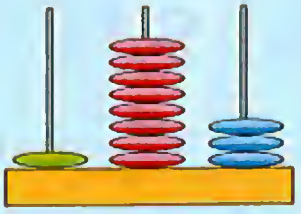


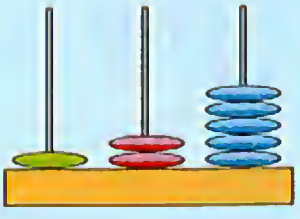
100 + 50 + 4

154

a) 

b) 

c) 

d) 

Place value to 200

100 + 40 + 3 = 143
one hundred and forty-three

100 + 70 + 2 = 172
one hundred and seventy-two

1 Write the numbers for these arrow cards.

a) 100 90 4 →

b) 100 20 6 →

c) 100 10 9 →

d) 100 70 7 →

e) 100 40 8 →

f) 100 50 1 →

2 Write these numbers as hundreds tens and units.

Example 132 = 100 + 30 + 2

a) 147 = ☐ + ☐ + ☐

b) 198 = ☐ + ☐ + ☐

c) 161 = ☐ + ☐ + ☐

d) 153 = ☐ + ☐ + ☐

e) 129 = ☐ + ☐ + ☐

f) 182 = ☐ + ☐ + ☐

3 Circle the digit in each number that shows these values.

a) Which digit shows one hundred? 1 5 1

b) Which digit shows 30? 1 3 3

c) Which digit shows six? 1 6 6

d) Which digit shows ninety? 1 9 9

e) Which digit shows 100? 1 1 1

4 Write these words as numbers.

a) one hundred and fifty-four

b) one hundred and twenty-two

c) one hundred and thirty-nine

d) one hundred and seventy-eight

e) one hundred and forty-six

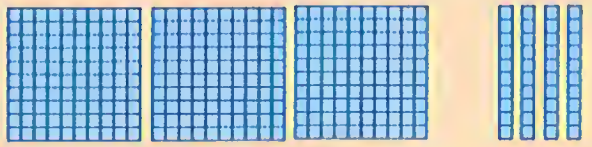
Try this

How many 3-digit numbers can you make from these number cards?

Make a list of the numbers and write them in order, starting with the smallest.

Numbers to 999

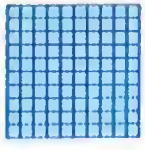
These show hundreds, tens and units.



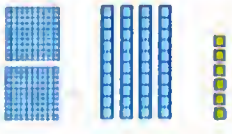
3 hundreds 4 tens 2 units

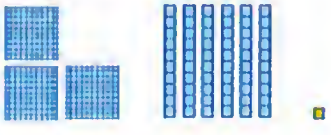
300 + 40 + 2 → 342

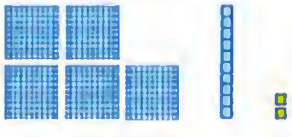
1 Write the numbers shown on each mat.

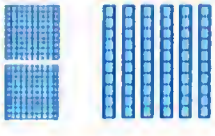
Hundreds	Tens	Units
		

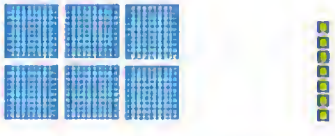
→ 136

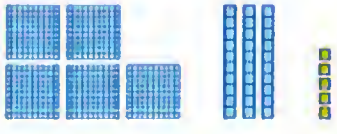
a)  ☐ hundreds ☐ tens ☐ units → ☐

b)  ☐ hundreds ☐ tens ☐ units → ☐

c)  ☐ hundreds ☐ tens ☐ units → ☐

d)  ☐ hundreds ☐ tens ☐ units → ☐

e)  ☐ hundreds ☐ tens ☐ units → ☐

f)  ☐ hundreds ☐ tens ☐ units → ☐

2 Write the value of the red digit in the following numbers.

Example
287 → 80

a) 272 b) 345 c) 525 d) 615

e) 567 f) 983 g) 869 h) 679

3 Write the number for each set of arrow cards.

a) 400 → 90 → 4 → ☐

b) 300 → 10 → 2 → ☐

c) 600 → 80 → 7 → ☐

d) 800 → 20 → 3 → ☐

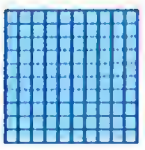
e) 200 → 50 → 1 → ☐

f) 500 → 40 → 8 → ☐

Try this

This number mat shows 101.

Draw a number mat to show the number that is 2 less than 101.

Hundreds	Tens	Units
		

Place value to 999

Example 1

347 = 300 + 40 + 7

The 3 stands for 300
The 4 stands for 40
The 7 stands for 7

347

347 is read as three hundred and forty-seven.

Example 2

582 = 500 + 80 + 2

The 5 stands for 500
The 8 stands for 80
The 2 stands for 2

582

582 is read as five hundred and eighty-two.

1 Complete these.

Example
3 hundreds 4 tens and 2 units = 342

a) 2 hundreds 6 tens and 1 unit =

b) 5 hundreds 8 tens and 3 units =

c) 4 hundreds 3 tens and 1 unit =

d) 5 hundreds 8 tens and 5 units =

e) 3 hundreds 6 tens and 7 units =

f) 5 hundreds 5 tens and 4 units =

2 Complete these.

Example
400 + 60 + 9 = 469

a) 500 + 40 + 3 =

b) 400 + 60 + 2 =

c) 600 + 30 + 1 =

d) 500 + 10 + 4 =

e) 300 + 20 + 6 =

f) 800 + 30 + 3 =

g) 400 + 30 + 4 =

h) 100 + 40 + 3 =

3 Match each word to the correct number.

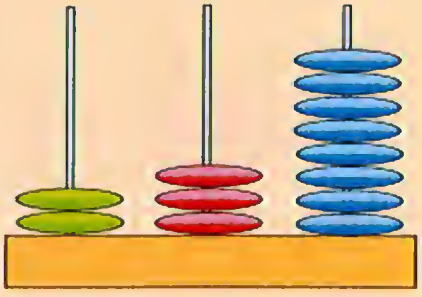
two hundred and seventy-nine	458
seven hundred and twenty-six	445
four hundred and forty-five	267
two hundred and sixty-seven	279
four hundred and fifty-eight	726

Try this

Write all the numbers between 200 and 500 that you can make using the digits 2, 3 and 4.

Using an abacus

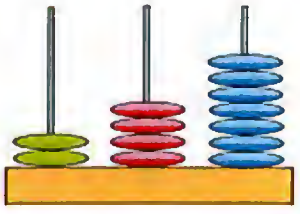
This abacus shows the number 238.



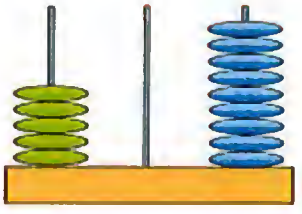
200 + 30 + 8 = 238

1 Write the numbers shown on each abacus.

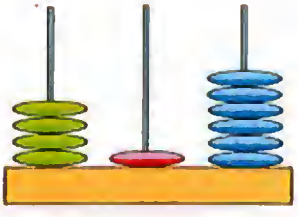
a)



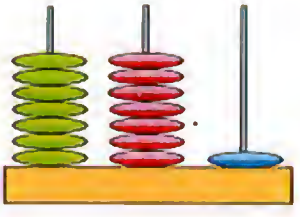
b)



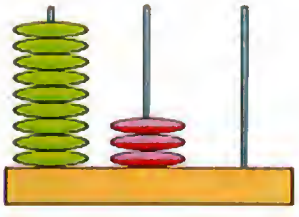
c)



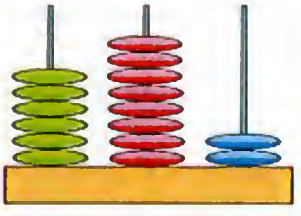
d)



e)

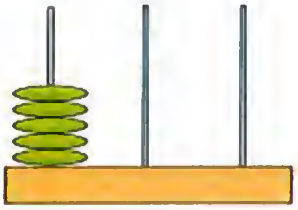


f)

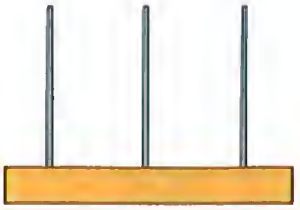


2 Draw beads on each abacus to show these numbers.

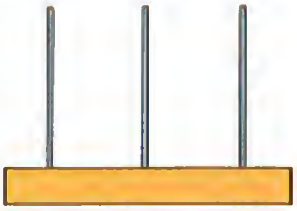
a) 524



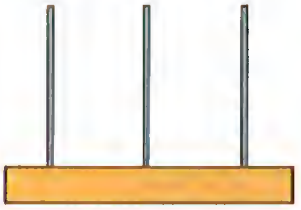
b) 173



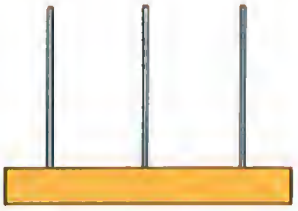
c) 605



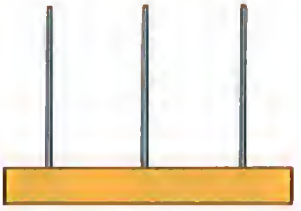
d) 332



e) 460



f) 291



Assessment

Draw an abacus and beads to show each of the following numbers.
Write the value of each number you have made.

a) 145 = 100 + 40 + 5

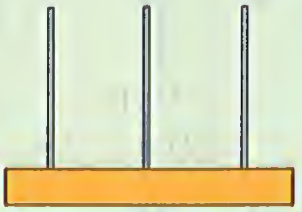
b) 479 = ☐ + ☐ + ☐

c) 607 = ☐ + ☐ + ☐

d) 590 = ☐ + ☐ + ☐

e) 737 = ☐ + ☐ + ☐

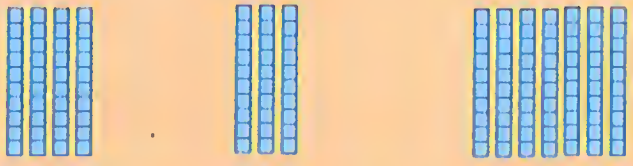
f) 809 = ☐ + ☐ + ☐



Adding tens

If you know your addition facts to 10, adding tens is easy.

4	+	3	=	**7**
4 tens	+	3 tens	=	**7 tens**
40	+	30	=	**70**



Use this to help add tens to 2-digit numbers.

60 + 23 = 60 + 20 + 3 = **83**

1 Complete these.

a)

5 tens + 2 tens =

50 + 20 =

b)

3 tens + 3 tens =

30 + 30 =

c)

2 tens + 4 tens =

20 + 40 =

d)

6 tens + 3 tens =

60 + 30 =

e)

2 tens + 3 tens =

20 + 30 =

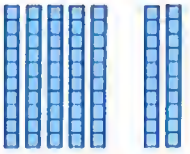
f)

3 tens + 5 tens =

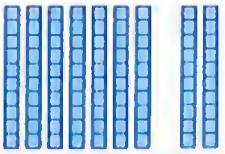
30 + 50 =

2 Write the missing numbers in these additions.

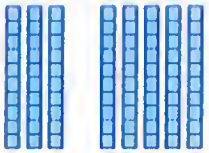
a) 50 + ☐ = 70



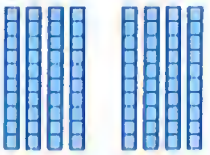
b) ☐ + 20 = 90



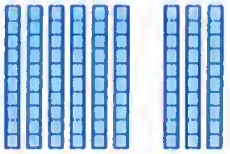
c) 30 + ☐ = 80



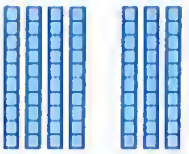
d) 40 + 40 = ☐



e) 60 + ☐ = 90

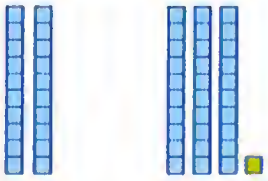


f) ☐ + 30 = 70

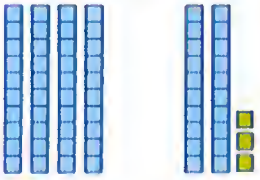


3 Answer these.

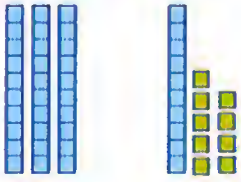
a) 20 + 31 =



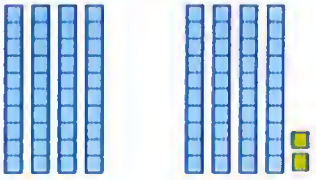
b) 40 + 23 =



c) 30 + 19 =



d) 40 + 42 =



4 Work out these additions.

a)
$$\begin{array}{r} 5\ 0 \\ +\ 4\ 2 \\ \hline \\ \hline \end{array}$$

b)
$$\begin{array}{r} 2\ 0 \\ +\ 1\ 8 \\ \hline \\ \hline \end{array}$$

Example

$$\begin{array}{r} 3\ 0 \\ +\ 4\ 1 \\ \hline 7\ 1 \end{array}$$

30 + 40 + 1 = 71

c)
$$\begin{array}{r} 4\ 0 \\ +\ 3\ 1 \\ \hline \\ \hline \end{array}$$

d)
$$\begin{array}{r} 6\ 0 \\ +\ 2\ 7 \\ \hline \\ \hline \end{array}$$

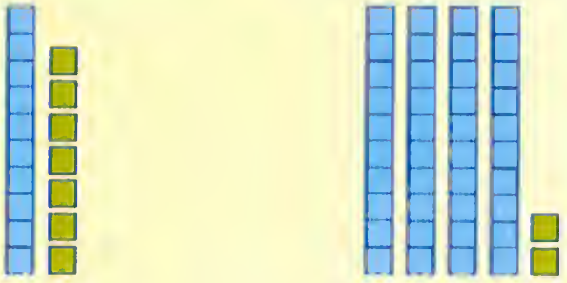
e)
$$\begin{array}{r} 4\ 0 \\ +\ 3\ 6 \\ \hline \\ \hline \end{array}$$

f)
$$\begin{array}{r} 7\ 0 \\ +\ 2\ 3 \\ \hline \\ \hline \end{array}$$

Adding numbers to 99: no exchange

Example 1

17 + 42 = 59



Try to add this mentally.

1 Add the units:	7	+	2	=	9
2 Add the tens:	30	+	40	=	70
3 Total tens and units:	70	+	9	=	79

Example 2

You can write these in columns.

	T	U
	5	4
+	3	3
	8	7

1 Add the units

4 + 3 = 7

	T	U
	5	4
+	3	3
		7

2 Add the tens.

50 + 30 = 80

	T	U
	5	4
+	3	3
	8	7

1 Answer these.

a)
$$\begin{array}{r} 64 \\ +\ 32 \\ \hline \\ \hline \end{array}$$

b)
$$\begin{array}{r} 31 \\ +\ 17 \\ \hline \\ \hline \end{array}$$

c)
$$\begin{array}{r} 52 \\ +\ 36 \\ \hline \\ \hline \end{array}$$

d)
$$\begin{array}{r} 40 \\ +\ 29 \\ \hline \\ \hline \end{array}$$

e)
$$\begin{array}{r} 23 \\ +\ 54 \\ \hline \\ \hline \end{array}$$

f)
$$\begin{array}{r} 71 \\ +\ 24 \\ \hline \\ \hline \end{array}$$

2 Answer these.

a) 21 + 36 =
b) 65 + 32 =
c) 46 + 43 =
d) 52 + 24 =
e) 13 + 15 =
f) 22 + 73 =
g) 41 + 38 =
h) 65 + 23 =
i) 14 + 30 =

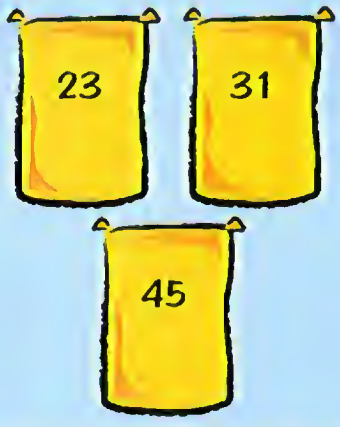
3 Answer these.

a) 46 add 22 equals ☐
b) The total of 35 and 31 is ☐
c) 14 added to 25 is ☐
d) The sum of 52 and 42 is ☐
e) 65 add 23 equals ☐
f) The total of 34 and 14 is ☐

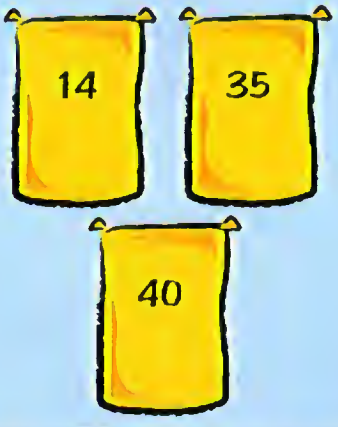
Try this

These sacks each hold a number of letters.
Find the total number of letters in each group.

a)



b)



c)

Adding to the next ten

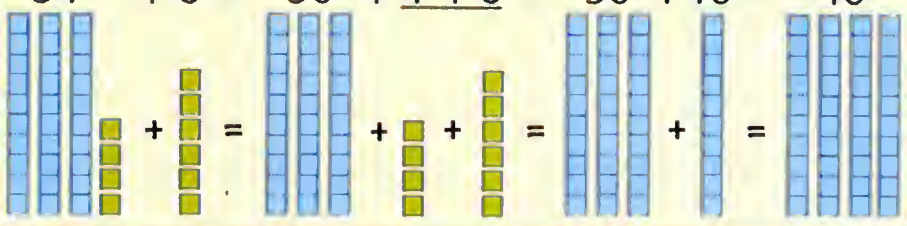
These pairs total 10.

1 + 9 2 + 8 3 + 7 4 + 6 5 + 5

Use these to help add bigger numbers.

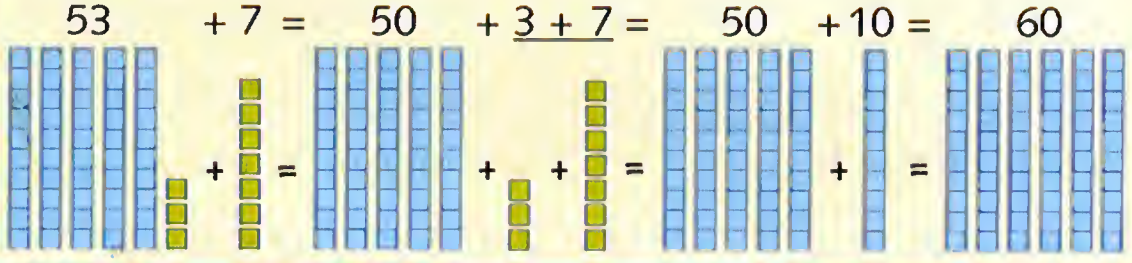
Example 1

34 + 6 = 30 + 4 + 6 = 30 + 10 = 40



Example 2

53 + 7 = 50 + 3 + 7 = 50 + 10 = 60



1 Complete these.

a) 28 + 2 =
20 + 8 + 2 =

b) 66 + 4 =
60 + 6 + 4 =

c) 41 + 9 =
40 + 1 + 9 =

d) 75 + 5 =
70 + 5 + 5 =

e) 59 + 1 =
□ + □ + □ =

f) 33 + 7 =
□ + □ + □ =

g) 65 + 5 =
□ + □ + □ =

h) 24 + 6 =
□ + □ + □ =

2 Answer these.

a) 45 + 5	**b)** 74 + 6	**c)** 17 + 3	**d)** 81 + 9
e) 68 + 2	**f)** 39 + 1	**g)** 25 + 5	**h)** 76 + 4

3 Add each of these and match to the answers.

50 60 70 80 90

46 + 4 61 + 9 83 + 7 45 + 5

64 + 6 53 + 7

81 + 9 74 + 6 58 + 2 78 + 2

Try this

Write the digits 1 to 9 in the spaces. Each digit can only be used once.

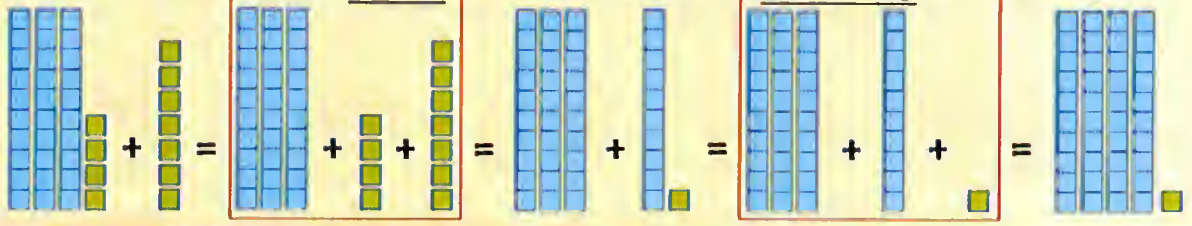
9 5 6 8 2 7 1 4 3

a) 15 + ☐ = 20	**b)** ☐6 + 4 = 50	**c)** 7☐ + 9 = 80
d) 6☐ + 3 = 70	**e)** 31 + ☐ = 40	**f)** ☐2 + 8 = 90
g) 4☐ + 7 = 50	**h)** ☐5 + 5 = 30	**i)** 54 + ☐ = 60

Crossing the ten: TU + U

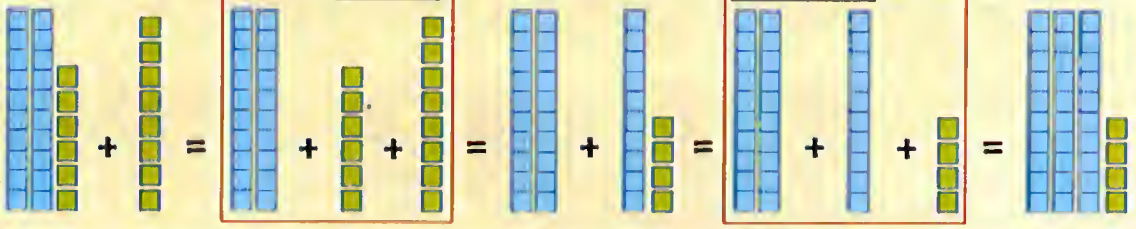
Example 1

$34 + 7 =$ Add the units $30 + \underline{4 + 7} = 30 + 11 =$ Add the tens $\underline{30 + 10} + 1 = 41$



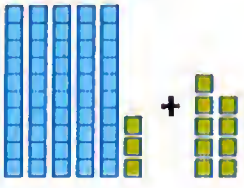
Example 2

$26 + 8 =$ Add the units $20 + \underline{6 + 8} = 20 + 14 =$ Add the tens $\underline{20 + 10} + 4 = 34$

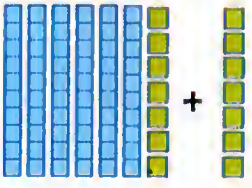


1 Add these. Use tens and units to help.

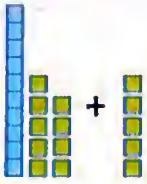
a) $53 + 9 =$



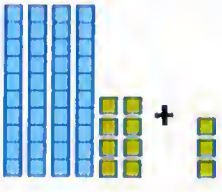
b) $67 + 7 =$



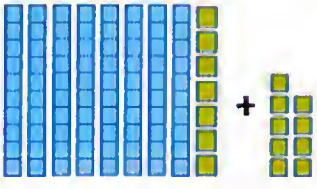
c) $19 + 5 =$



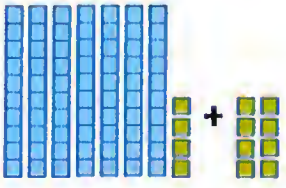
d) $48 + 3 =$



e) $87 + 9 =$



f) $74 + 8 =$

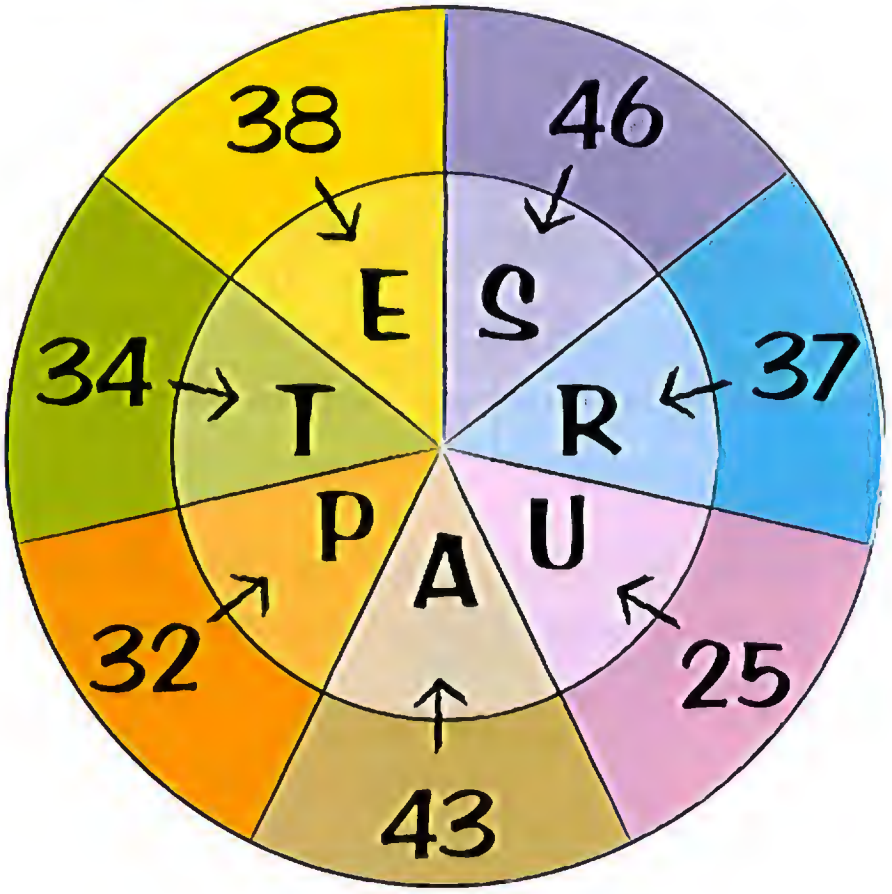


2 Answer these.

a) 25 + 6 = **b)** 38 + 7 = **c)** 72 + 9 =

d) 46 + 6 = **e)** 59 + 4 = **f)** 18 + 8 =

3 Answer these additions and write the matching code letter to find the hidden message.



37 + 9	18 + 7	28 + 4	29 + 9	29 + 8	39 + 7	28 + 6	37 + 6	28 + 9

You are a

Adding 2-digit numbers

Example 1

$28 + 35 \rightarrow 20 + 8 + 30 + 5 = 50 + 13$

$8 + 5 = 13$
$20 + 30 = 50$
$50 + 13 = 63$

Example 2

$34 + 37 \rightarrow 30 + 4 + 30 + 7 = 60 + 11$

$4 + 7 = 11$
$30 + 30 = 60$
$60 + 11 = 71$

1 Complete these.

a) $46 + 29 \rightarrow 40 + 6 + 20 + 9 = \square + \square \rightarrow \square$

b) $18 + 73 \rightarrow 10 + 8 + 70 + 3 = \square + \square \rightarrow \square$

c) $45 + 47 \rightarrow 40 + 5 + 40 + 7 = \square + \square \rightarrow \square$

d) $38 + 38 \rightarrow 30 + 8 + 30 + 8 = \square + \square \rightarrow \square$

e) $26 + 35 \rightarrow 20 + 6 + 30 + 5 = \square + \square \rightarrow \square$

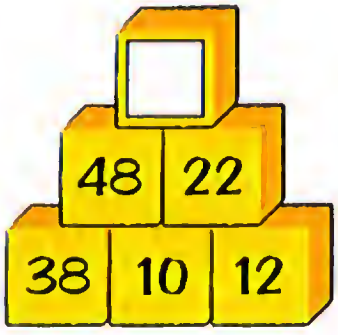
f) $54 + 19 \rightarrow 50 + 4 + 10 + 9 = \square + \square \rightarrow \square$

g) $37 + 47 \rightarrow 30 + 7 + 40 + 7 = \square + \square \rightarrow \square$

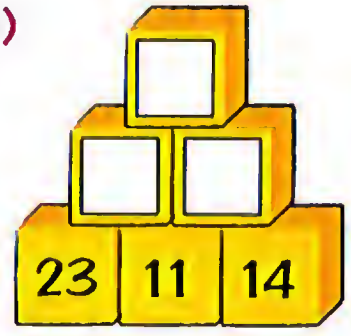
h) $54 + 28 \rightarrow 50 + 4 + 20 + 8 = \square + \square \rightarrow \square$

2 Complete these addition walls. Each number is the sum of the two numbers below it.

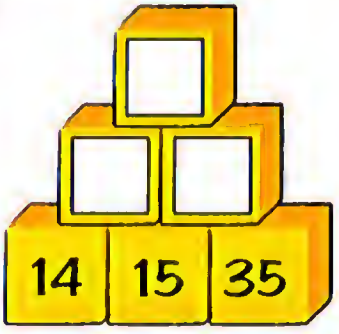
a)



b)



c)



Assessment

Use the grid to answer these.

21	24	13
34	75	50
43	62	51

a) Which two numbers total 86? ☐ and ☐

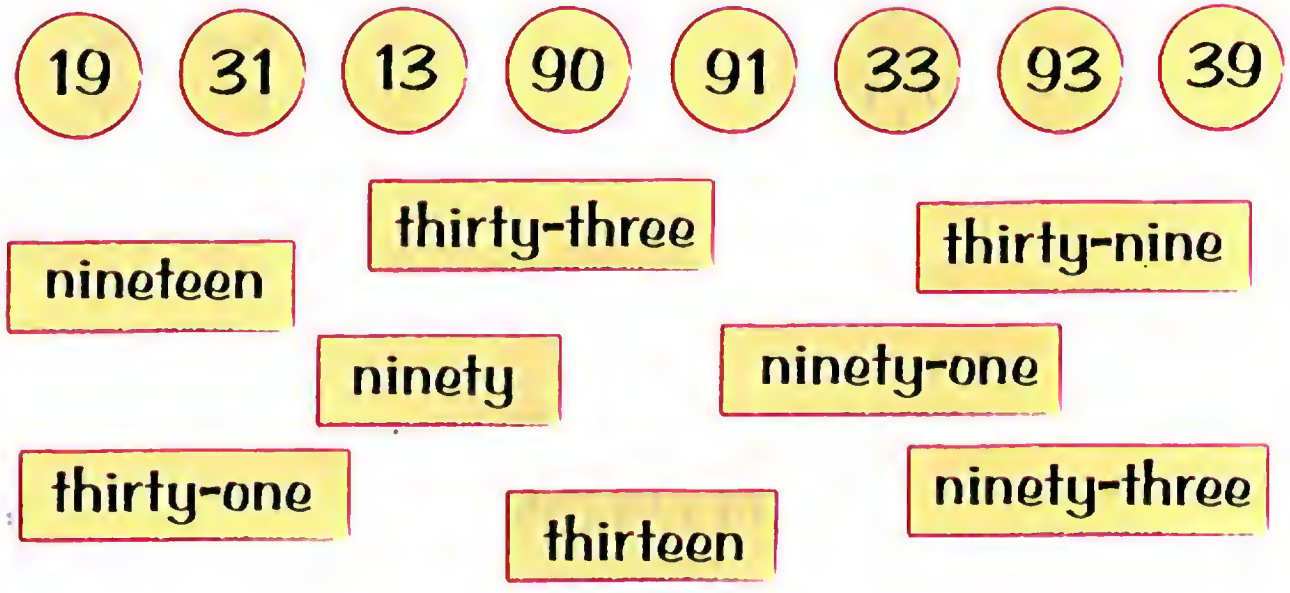
b) Write pairs of numbers that total the centre number. ☐ and ☐, ☐ and ☐

c) What is the total of the three numbers on the top row? ☐

d) What is the total of each pair of opposite corner numbers? ☐ and ☐

Numbers to 100

1 Join each word to the matching number.



2 Write these words as numbers.
Write them in order, starting with the smallest.

3 Write the missing numbers in each sequence.

a) 30 ☐ 50 60 ☐ ☐ 90

b) 19 20 ☐ 22 23 ☐ ☐

c) 40 50 ☐ ☐ 80 ☐ 100

d) 47 ☐ 49 ☐ ☐ 52 53

e) 10 ☐ ☐ 40 50 ☐ ☐

f) 78 79 ☐ ☐ 82 ☐ ☐

4 Write the value of the red digit in each of these numbers.

Example	37 → 30

a) 42 b) 19 c) 54 d) 82

e) 66 f) 13 g) 74 h) 89

i) 60 j) 97 k) 49 l) 91

Try this

Use 6 beads on an abacus.

List the different numbers you can make with 6 beads. Write the numbers in order.

Numbers to 999

1 Complete these.

Example 348 = 3 hundreds + 4 tens + 8 units

a) 275 = ☐ hundreds + ☐ tens + ☐ units

b) 326 = ☐ hundreds + ☐ tens + ☐ units

c) 239 = ☐ hundreds + ☐ tens + ☐ units

d) 487 = ☐ hundreds + ☐ tens + ☐ units

e) 265 = ☐ hundreds + ☐ tens + ☐ units

f) 536 = ☐ hundreds + ☐ tens + ☐ units

g) 978 = ☐ hundreds + ☐ tens + ☐ units

h) 353 = ☐ hundreds + ☐ tens + ☐ units

i) 844 = ☐ hundreds + ☐ tens + ☐ units

j) 692 = ☐ hundreds + ☐ tens + ☐ units

2 Write these as numbers.

Example Six hundred and thirty-five = 635

a) Eight hundred and twenty-five

b) Six hundred and thirty-two

c) Seven hundred and twenty-two

d) Four hundred and eighty-five

e) Six hundred and sixty-three

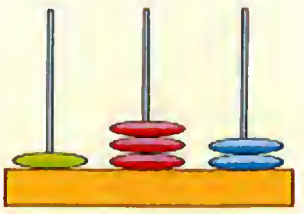
f) Two hundred and seventy-five

g) Nine hundred and fourteen

h) Five hundred and forty

3 Draw an abacus and beads to show each of the following numbers.
Write the value of each digit in the numbers you have made.

Example 132



100 + 30 + 2

a) 145 **b)** 479

c) 167 **d)** 290

e) 337 **f)** 509 **g)** 690 **h)** 718

4 Circle the digit in each number that shows these values.

a) Which digit shows seven hundred? 7 5 7

b) Which digit shows 80? 8 8 9

c) Which digit shows four? 2 4 4

d) Which digit shows fifty? 5 5 5

e) Which digit shows 300? 3 3 3

Try this

Write all the numbers between 500 and 900 that you can make with the digits 5, 7 and 8.

Addition to 99

1 Answer these.

a) 52 + 31 = ____

b) 21 + 17 = ____

c) 42 + 36 = ____

d) 52 + 37 = ____

e) 36 + 32 = ____

f) 75 + 23 = ____

2 Complete these.

a) 36 + 19 → 30 + 6 + 10 + 9

□ + □ → □

b) 18 + 43 → 10 + 8 + 40 + 3

□ + □ → □

c) 25 + 17 → 20 + 5 + 10 + 7

□ + □ → □

d) 23 + 28 → 20 + 3 + 20 + 8

□ + □ → □

e) 26 + 35 → 20 + 6 + 30 + 5

□ + □ → □

f) 34 + 19 → 30 + 4 + 10 + 9

□ + □ → □

3

Use these numbers to answer the questions.

a) What is the largest total you can make when adding two of these numbers?

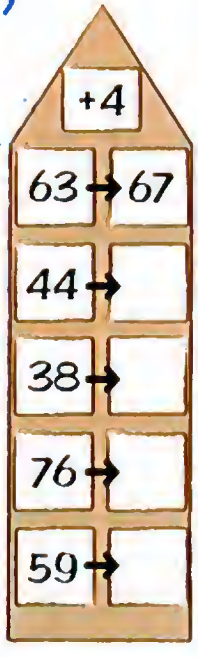
b) What is the smallest answer you can make when adding two of these numbers?

c) Which two numbers make 60 when added together?

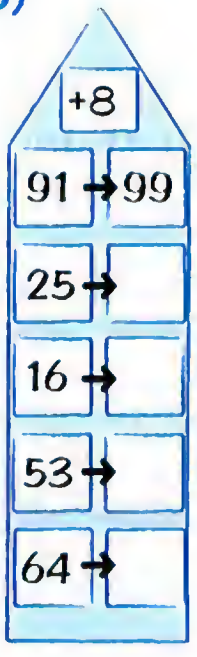
d) Find two pairs of numbers that each total 55.

4 Complete these total towers.

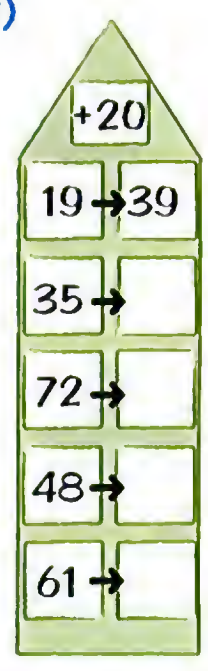
a)



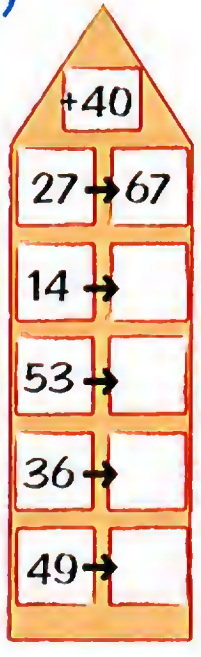
b)



c)



d)



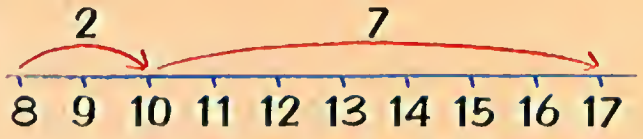
Try this

25 + 43 = 68

Find other ways to make 68 by adding together numbers.

Subtraction within 20

What is the difference between 8 and 17?
Count on from 8 to 17 to find the difference.



Counting on from 8 to 10 is 2
Counting on from 10 to 17 is 7

$2 + 7 = 9$

The difference between 8 and 17 is 9.

1 Use the number line to help find the difference between these pairs of numbers.

a) 14 8 b) 13 7 c) 17 9

d) 12 8 e) 15 9 f) 8 11

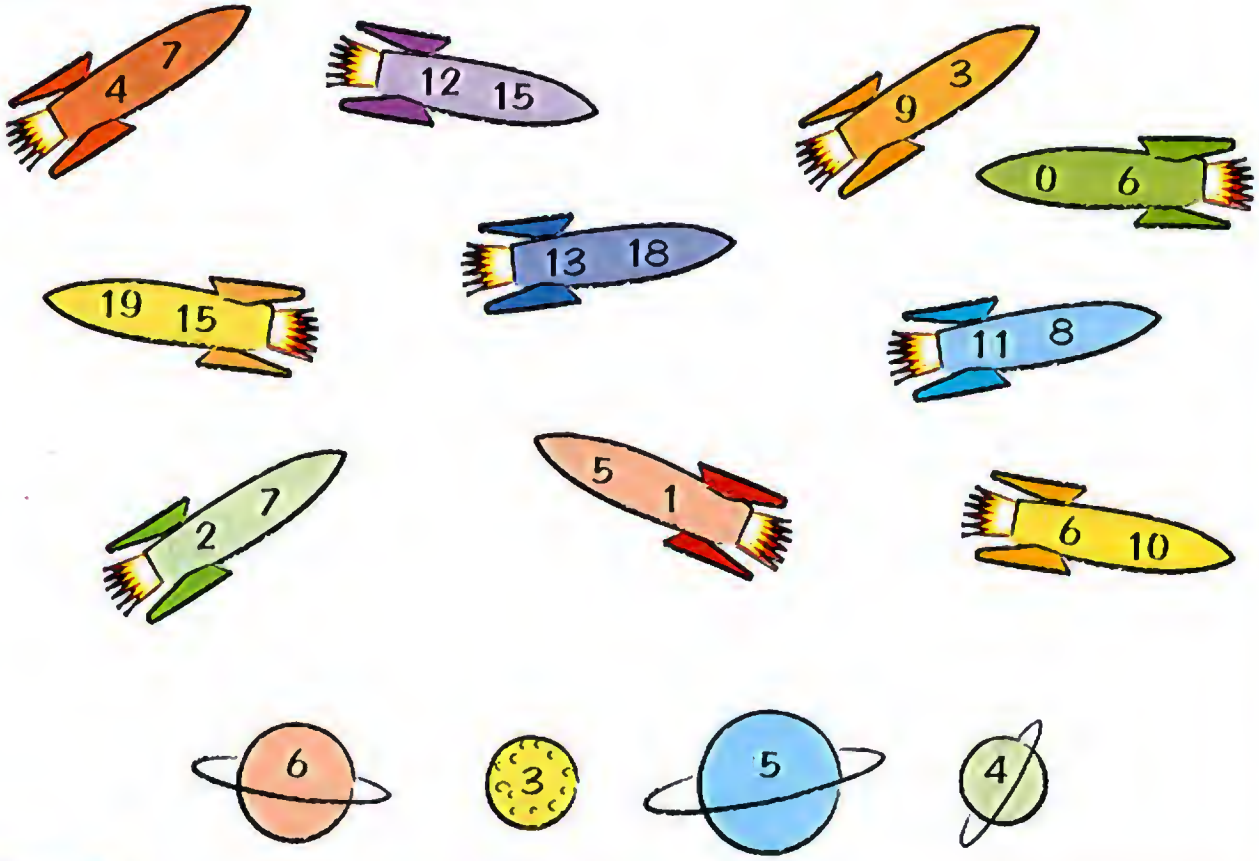
g) 13 18 h) 12 17 i) 9 13

j) 11 19 k) 18 15 l) 14 16

2 Answer these.

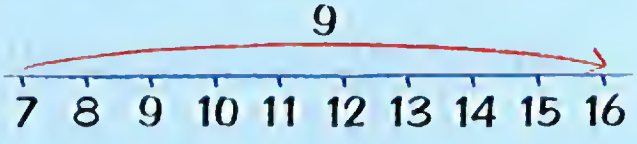
a) 17 – 8 =
b) 11 – 4 =
c) 12 – 9 =
d) 15 – 7 =
e) 16 – 8 =
f) 11 – 5 =
g) 13 – 7 =
h) 14 – 9 =
i) 15 – 6 =

3 Find the difference between the pairs of numbers on each spaceship. Draw a line from each spaceship to the planet with the matching difference.



Try this

The difference between 16 and 7 is 9.



Find five other pairs of numbers with a difference of 9.

Subtracting tens

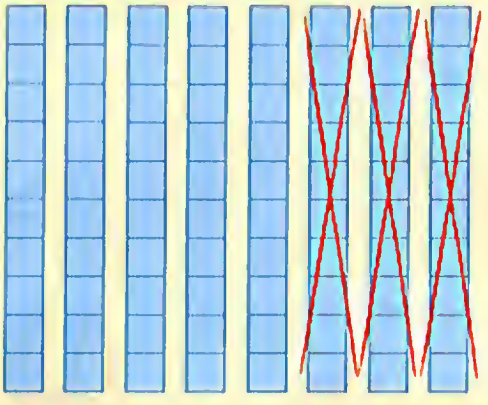
Use the subtraction facts you know to help you subtract tens.

Example

$8 - 3 = 5$

8 tens − 3 tens = 5 tens

80 − 30 = 50



1 Write the answers.

a) $7 - 2 =$
$70 - 20 =$

b) $5 - 4 =$
$50 - 40 =$

c) $6 - 3 =$
$60 - 30 =$

d) $9 - 2 =$
$90 - 20 =$

e) $3 - 1 =$
$30 - 10 =$

f) $8 - 5 =$
$80 - 50 =$

g) $6 - 2 =$
$60 - 20 =$

h) $4 - 2 =$
$40 - 20 =$

i) $9 - 3 =$
$90 - 30 =$

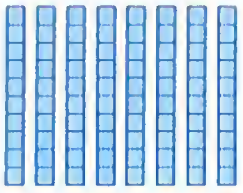
j) $8 - 6 =$
$80 - 60 =$

k) $7 - 4 =$
$70 - 40 =$

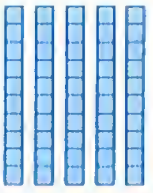
l) $5 - 3 =$
$50 - 30 =$

2 Answer these.
Cross out the rods to help you.

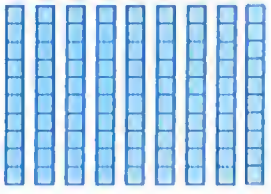
a) 80 – 60 =



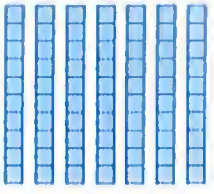
b) 50 – 20 =



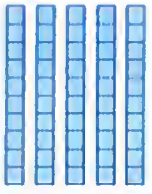
c) 90 – 30 =



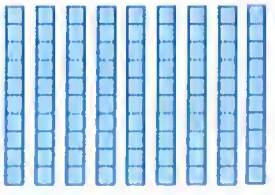
d) 70 – 10 =



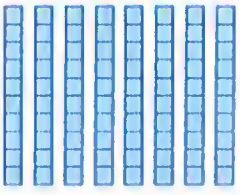
e) 50 – 30 =



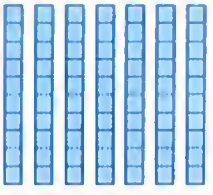
f) 90 – 40 =



g) 80 – 20 =



h) 70 – 50 =



3 Subtract these. Use the number line to help you.

a) 90 – 40 =

b) 50 – 30 =

c) 90 – 70 =

d) 80 – 20 =

e) 60 – 50 =

f) 70 – 10 =

g) 40 – 30 =

h) 50 – 20 =

Try this

☐ – ☐ = 30

Two numbers have a difference of 30.
If one of the numbers is 40, what could the other number be?

Subtracting: TU – U

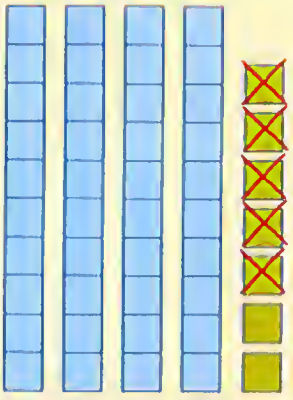
Example

47 – 5 = 42

Break up the 47 into tens and units

40 + 7 – 5 = 40 + 2

= 42



This can be written in columns.

	T	U	
	4	7	• Subtract the units 7 – 5 = 2
–		5	• Subtract the tens 40 – 0 = 40
	4	2	

1 Complete these.

Example

64 – 2

60 + 4 – 2 = 62

a) 38 – 3

30 + ☐ – 3 = ☐

b) 75 – 4

70 + ☐ – 4 = ☐

c) 29 – 3

20 + ☐ – 3 = ☐

d) 86 – 2

80 + ☐ – 2 = ☐

e) 97 – 5

90 + ☐ – 5 = ☐

2 Complete these.

a) 49 – 2 =

b) 87 – 3 =

c) 36 – 4 =

d) 58 – 7 =

e) 75 – 2 =

f) 99 – 4 =

g) 64 – 3 =

h) 47 – 5 =

3 Answer these.

a)
$$\begin{array}{r} 68 \\ -\ 2 \\ \hline \\ \hline \end{array}$$

b)
$$\begin{array}{r} 27 \\ -\ 4 \\ \hline \\ \hline \end{array}$$

c)
$$\begin{array}{r} 59 \\ -\ 1 \\ \hline \\ \hline \end{array}$$

d)
$$\begin{array}{r} 94 \\ -\ 3 \\ \hline \\ \hline \end{array}$$

e)
$$\begin{array}{r} 78 \\ -\ 4 \\ \hline \\ \hline \end{array}$$

f)
$$\begin{array}{r} 83 \\ -\ 1 \\ \hline \\ \hline \end{array}$$

g)
$$\begin{array}{r} 45 \\ -\ 3 \\ \hline \\ \hline \end{array}$$

h)
$$\begin{array}{r} 39 \\ -\ 5 \\ \hline \\ \hline \end{array}$$

i)
$$\begin{array}{r} 56 \\ -\ 3 \\ \hline \\ \hline \end{array}$$

Try this

Answer these.

a) Baher and his younger sister have the same birthday. Baher is 16 this year. His sister is 3 years younger. How old is his sister?

b) There are 37 children in Class 2. Today 5 children are away. How many children are there in class today?

c) A plank of wood is 89 cm long. 8 cm is cut off. How long is the piece of wood now?

d) Ayah has $78. She spends $4. How much does she have left?

e) In a maths test there were 25 questions. Hadi got top marks in the class with only 2 answers wrong. What was his score?

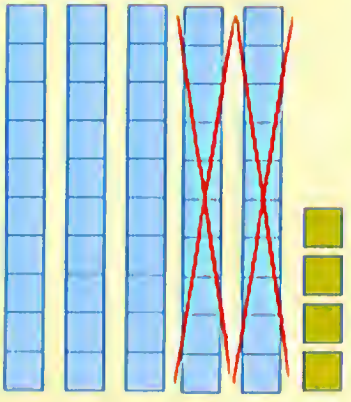
Subtracting TU and tens

Introduction

Example

54 – 20 = 34

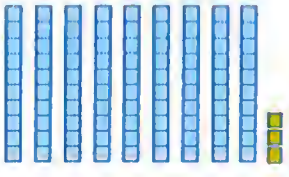
- Break up the 54 into tens and units.
  50 + 4
- Subtract 20 from 50
  50 – 20 = 30
- Add 4
  30 + 4 = 34

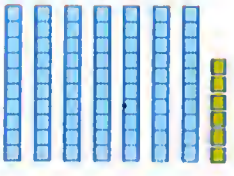


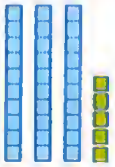
You can write this in columns.

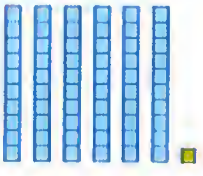
	T	U	
	5	4	• Subtract the units 4 – 0 = 4
–	2	0	• Subtract the tens 50 – 20 = 30
	3	4	

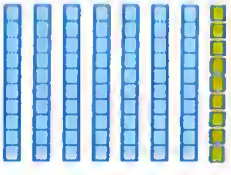
1 Cover the rods to help answer these.

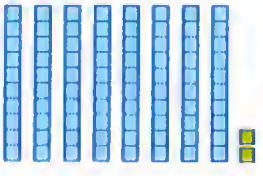
a)  93 – 50 =

b)  76 –10 =

c)  35 – 20 =

d)  61 – 30 =

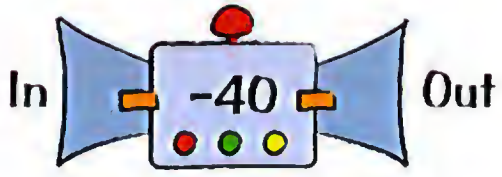
e)  79 – 50 =

f)  82 – 40 =

2 Answer these. Subtract the units then subtract the tens.

a) 26 − 10 =	**b)** 51 − 30 =	**c)** 83 − 40 =	**d)** 95 − 60 =	**e)** 72 − 20 =
f) 58 − 40 =	**g)** 96 − 20 =	**h)** 47 − 10 =	**i)** 89 − 60 =	**j)** 66 − 20 =

3 These are 'Take away machines'. Subtract and write the numbers coming out of each machine.



a) 56 →

b) 69 →

c) 88 →

d) 47 →

e) 74 →

f) 65 →

g) 77 →

h) 43 →

i) 91 →

j) 68 →

Try this

What are the missing numbers?

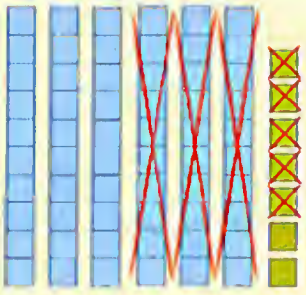
a) 63 − ☐ = 33 **b)** 47 − ☐ = 37 **c)** 55 − ☐ = 35

d) 74 − ☐ = 34

Subtracting 2-digit numbers: no exchange

Example

67 – 35 = 32



1 Subtract the units.

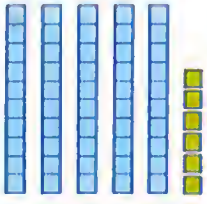
T	U	
6	7	
– 3	5	
	2	7 – 5

2 Subtract the tens.

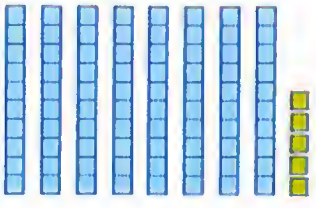
T	U	
6	7	
– 3	5	
3	2	60 – 30

1 Answer these.

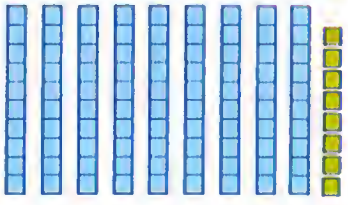
a) 56 – 15 =



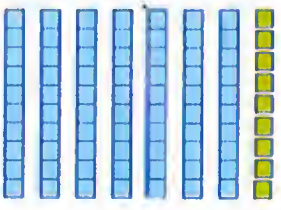
b) 85 – 43 =



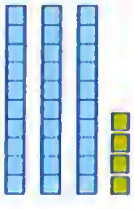
c) 98 – 74 =



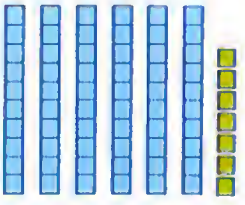
d) 79 – 65 =



e) 34 – 12 =



f) 67 – 26 =



2 Answer these.

a) 85 − 24 = ____

b) 66 − 36 = ____

c) 38 − 15 = ____

d) 77 − 53 = ____

e) 59 − 25 = ____

f) 44 − 32 = ____

g) 98 − 43 = ____

h) 29 − 17 = ____

i) 57 − 23 = ____

Assessment

Find four different ways to complete each of these.

a) ☐ − ☐ = 23 **b)** ☐ − ☐ = 41

c) Choose one of your subtractions and make up a story problem for it.

Example

There are ? eggs and ? of them are broken.
This leaves 23 eggs.

Unit 6 Multiplication

Grouping

Grouping objects and then counting the groups is a useful way of counting.

- How many balloons are in each group? 3
- How many groups of balloons are there? 5
- How many balloons are there altogether? 5 groups of 3 makes 15.

1 Count these groups. Complete each sentence.

a)  ☐ groups of 3 makes ☐

b)  ☐ groups of 5 makes ☐

c)  ☐ groups of 10 makes ☐

d)  ☐ groups of 2 makes ☐

e)  ☐ groups of 4 makes ☐

f)  ☐ groups of 10 makes ☐

2 Count these objects in groups. Complete each sentence.

a) 

☐ groups of ☐ = ☐

b) 

☐ groups of ☐ = ☐

c) 

☐ groups of ☐ = ☐

d) 

☐ groups of ☐ = ☐

e) 

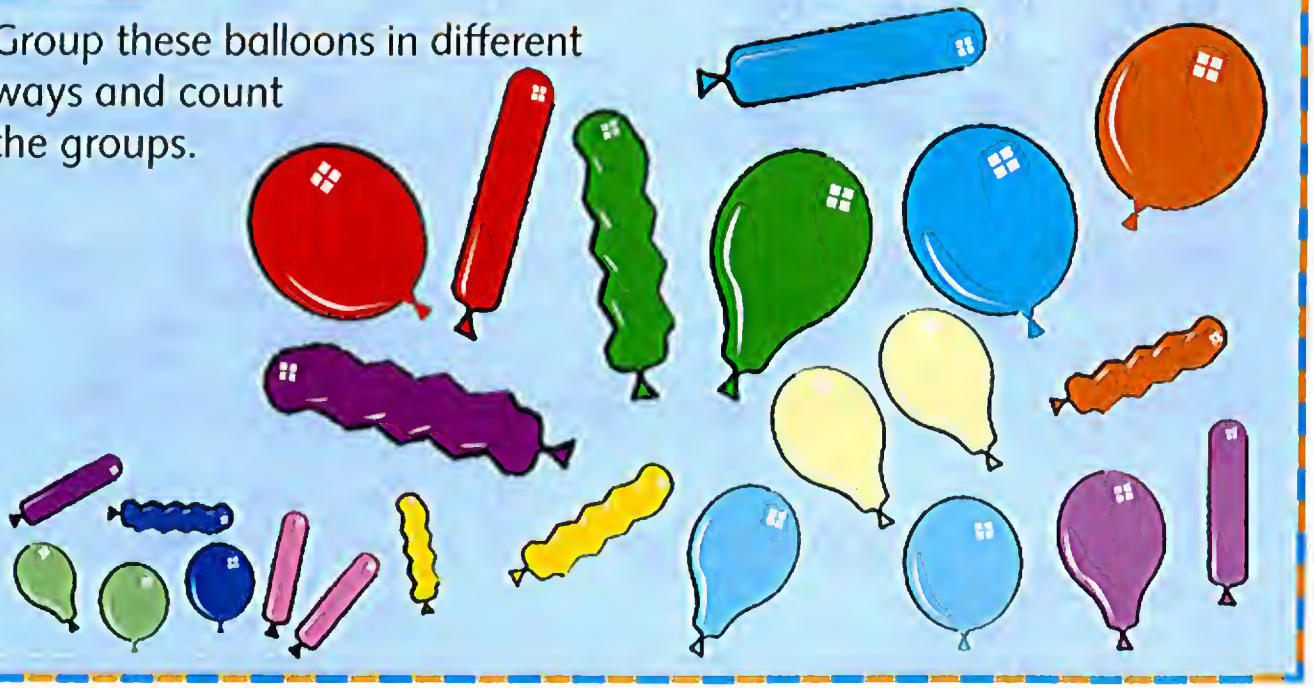
☐ groups of ☐ = ☐

f) 

☐ groups of ☐ = ☐

Try this

Group these balloons in different ways and count the groups.



Repeated addition

Example

Count these groups of 4.

4 + 4 + 4 = 12

1 Count these groups and write the answers.

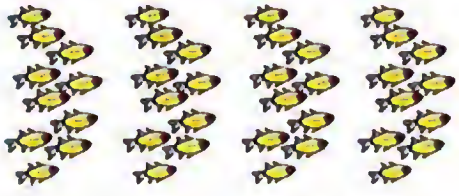
a)

3 + 3 + 3 =

b)

2 + 2 + 2 + 2 + 2 + 2 =

c)



10 + 10 + 10 + 10 =

d)

4 + 4 =

e)

5 + 5 + 5 + 5 =

f)

3 + 3 + 3 + 3 + 3 + 3 =

g)

2 + 2 + 2 + 2 =

h)

4 + 4 + 4 + 4 + 4 =

i)

10 + 10 =

j)

5 + 5 + 5 =

2 Draw 3 flags on each castle. Write the answers.

a)

□ + □ + □ + □ + □ + □ = □

6 groups of 3 = □

b)

□ + □ + □ + □ + □ = □

5 groups of 3 = □

Try this

Count the wheels in each row. Complete each sentence.

a)  2 repeated 8 times = □ wheels

b)  4 repeated 6 times = □ wheels

c)  3 repeated 6 times = □ wheels

Multiplying

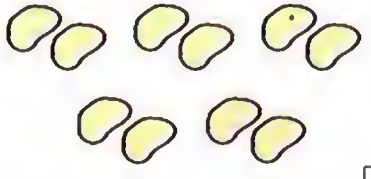
The multiplication sign is ×

Example

5 + 5 + 5 = 15
5 multiplied by 3 = 15
5 × 3 = 15

1 Multiply these. Count the groups to help.

a)



2 + 2 + 2 + 2 + 2 = ☐

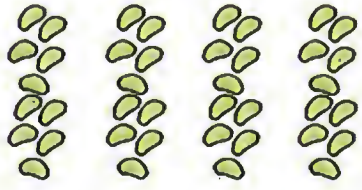
2 multiplied by 5 = ☐

b)

3 + 3 = ☐

3 multiplied by 2 = ☐

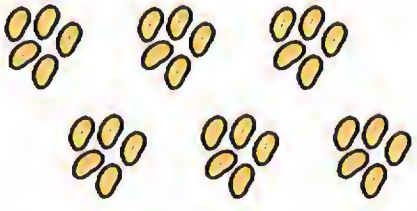
c)



10 + 10 + 10 + 10 = ☐

10 multiplied by 4 = ☐

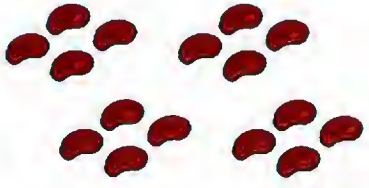
d)



5 + 5 + 5 + 5 + 5 + 5 = ☐

5 multiplied by 6 = ☐

e)



4 + 4 + 4 + 4 = ☐

4 multiplied by 4 = ☐

f)

2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = ☐

2 multiplied by 9 = ☐

2 Answer these.

a) $10 + 10 + 10 =$
$10 \times 3 =$

b) $2 + 2 + 2 + 2 =$
$2 \times 4 =$

c) $5 + 5 + 5 + 5 =$
$5 \times 4 =$

d) $3 + 3 + 3 + 3 + 3 =$
$3 \times 5 =$

e) $4 + 4 =$
$4 \times 2 =$

f) $2 + 2 + 2 =$
$2 \times 3 =$

g) $3 + 3 + 3 + 3 + 3 + 3 =$
$3 \times 6 =$

h) $4 + 4 + 4 + 4 + 4 + 4 =$
$4 \times 6 =$

3 Draw seeds to match each question. Write the answers.

a) 
$2 + 2 + 2 =$ ☐ → $2 \times 3 =$ ☐

b) 
$5 + 5 + 5 + 5 =$ ☐ → $5 \times 4 =$ ☐

c) 
$3 + 3 + 3 + 3 =$ ☐ → $3 \times 4 =$ ☐

d) 
$2 + 2 + 2 + 2 + 2 + 2 =$ ☐ → $2 \times 6 =$ ☐

e) 
$4 + 4 + 4 =$ ☐ → $4 \times 3 =$ ☐

f) 
$5 + 5 + 5 + 5 + 5 =$ ☐ → $5 \times 5 =$ ☐

g) 
$3 + 3 =$ ☐ → $3 \times 2 =$ ☐

h) 
$10 + 10 + 10 + 10 =$ ☐ → $10 \times 4 =$ ☐

Arrays

These lettuces are planted in rows.

They can be counted in 3s
3 + 3 + 3 + 3 = 12
3 multiplied by 4 = 12
3 × 4 = 12

They can be counted in 4s
4 + 4 + 4 = 12
4 multiplied by 3 = 12
4 × 3 = 12

This shows that 3 × 4 has the same answer as 4 × 3.

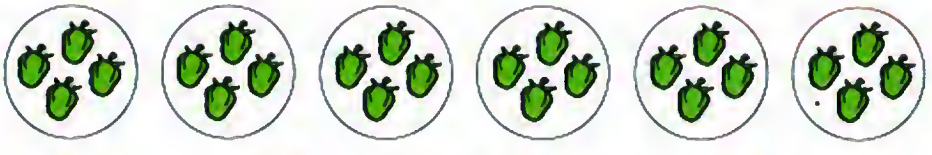
1 Complete each of these.

a) 

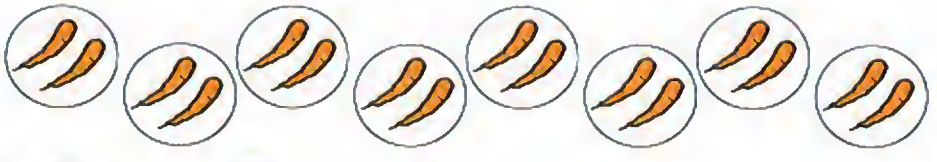
2 × 5 = ☐

b) 

10 × 3 = ☐

c) 

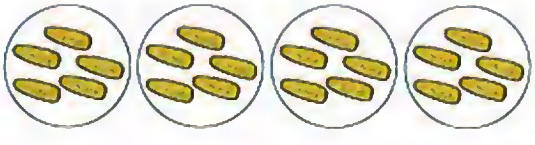
4 × 6 = ☐

d) 

2 × 8 = ☐

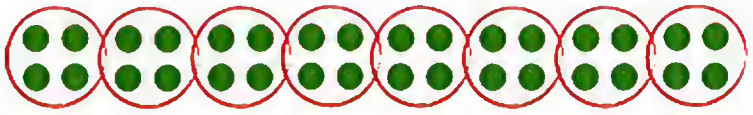
e) 

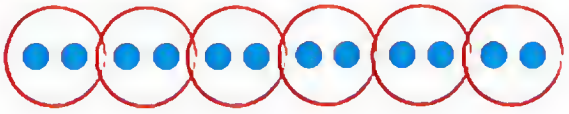
3 × 3 = ☐

f) 

5 × 4 = ☐

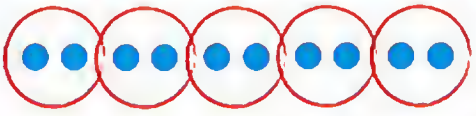
2 Write multiplications to match each of these.

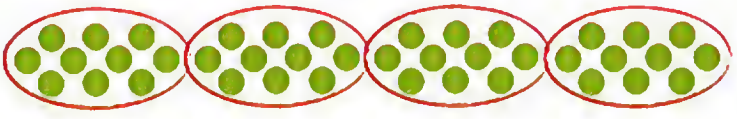
a)  ☐ × ☐ = ☐

b)  ☐ × ☐ = ☐

c)  ☐ × ☐ = ☐

d)  ☐ × ☐ = ☐

e)  ☐ × ☐ = ☐

f)  ☐ × ☐ = ☐

3 Group these to show the multiplications.

a)  4 × 6 = ☐

b)  2 × 5 = ☐

c)  4 × 5 = ☐

d)  4 × 4 = ☐

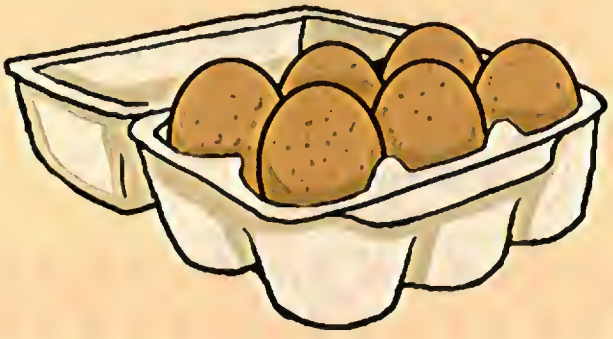
e)  3 × 6 = ☐

f)  7 × 3 = ☐

Multiplying by 1 and 0

If you multiply any number by 1, the number stays the same.

1 group of 6 makes 6
$6 \times 1 = 6$
$1 \times 6 = 6$



If you multiply any number by 0, the answer is 0.

0 groups of 6 makes 0
$6 \times 0 = 0$
$0 \times 6 = 0$

1 Answer these.

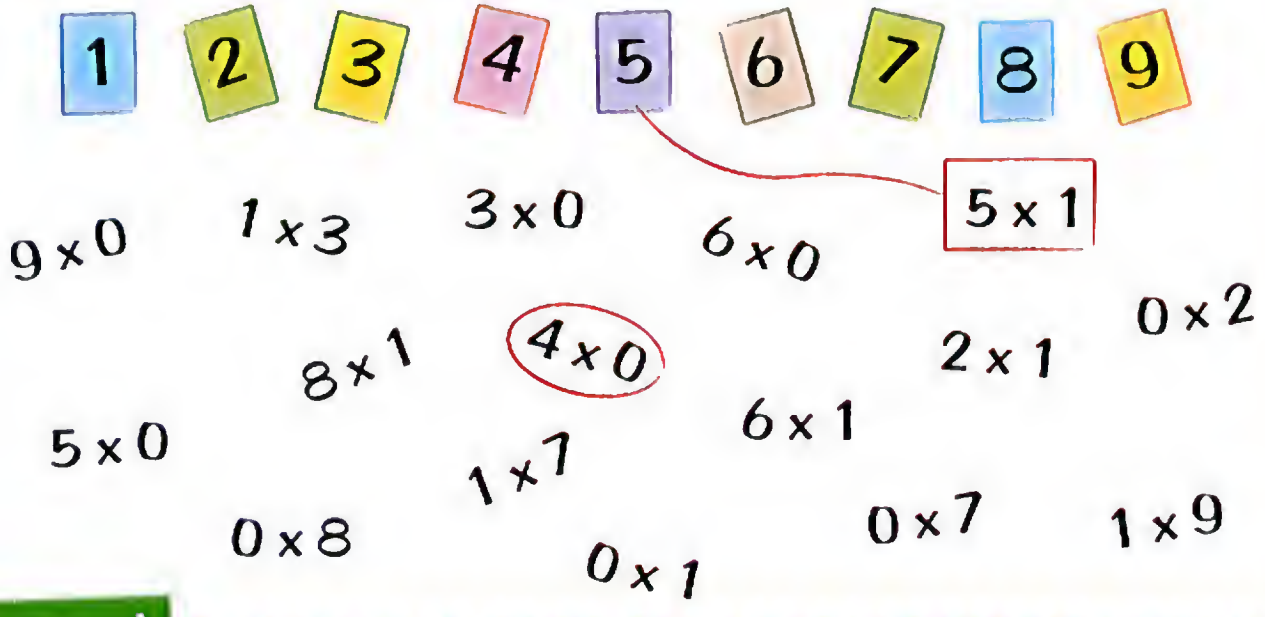
a) $3 \times 1 = \square$ **b)** $4 \times 0 = \square$ **c)** $0 \times 5 = \square$

d) $1 \times 8 = \square$ **e)** $\square \times 1 = 2$ **f)** $3 \times \square = 0$

g) $\square \times 7 = 0$ **h)** $1 \times \square = 9$ **i)** $10 \times 1 = \square$

j) $\square \times 8 = 0$

2 Draw a circle around those with an answer of zero.
Join the others to the matching answers.



Assessment

Write two multiplications for each set.

a) 

□ × □ = □ □ × □ = □

b) 

□ × □ = □ □ × □ = □

c) 

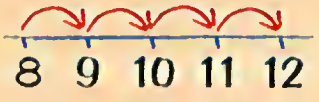
□ × □ = □ □ × □ = □

d) 

□ × □ = □ □ × □ = □

Adding to 20

Try to learn all the addition facts to 20.
Use different strategies to help learn them.

Near doubles	Counting on	Crossing 10
4 + 4 = 8 4 + 5 is 1 more → 9 6 + 6 = 12 6 + 7 is 1 more → 13	4 + 8 gives the same answer as 8 + 4. Start at 8 and count on.  	Take 2 steps: 8 + 5 = 8 + 2 + 3 = 8 + 2 + 3 = 10 + 3 8 + 5 = 13

1 Use near doubles to help answer these.

a) 3 + 3 = 3 + 4 =

b) 7 + 7 = 7 + 8 =

c) 5 + 5 = 5 + 6 =

d) 8 + 8 = 8 + 9 =

e) 4 + 4 = 4 + 5 =

f) 6 + 6 = 6 + 7 =

2 Choose a method to answer these.

a) 9 + 5 =

b) 7 + 4 =

c) 8 + 3 =

d) 9 + 7 =

e) 7 + 6 =

f) 9 + 4 =

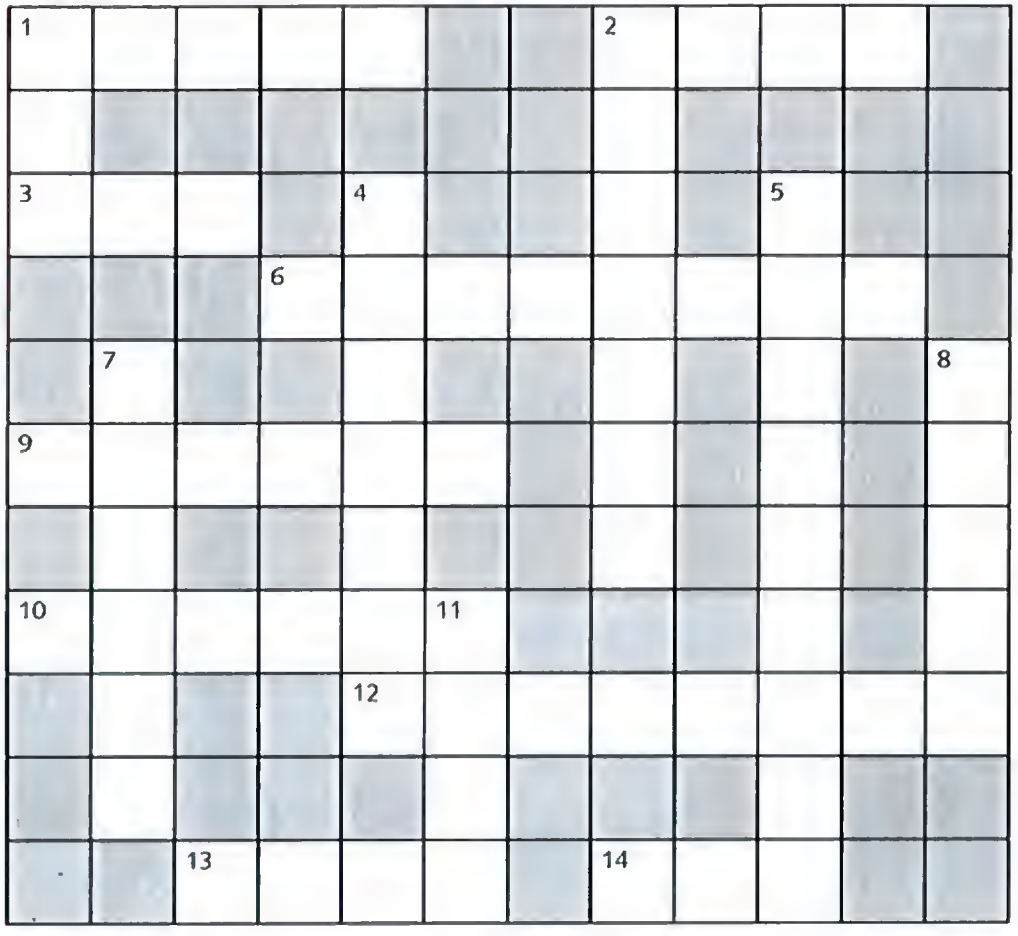
g) 8 + 6 =

h) 5 + 8 =

i) 7 + 5 =

j) 6 + 9 =

3 Write the answers as number words to complete the crossword.



Across

1) 2 + 1 =
2) 2 + 2 =
3) 0 + 1 =
6) 9 + 9 =
9) 10 + 10 =
10) 7 + 4 =
12) 9 + 10 =
13) 3 + 2 =
14) 2 + 8 =

Down

1) 2 + 0 =
2) 7 + 8 =
4) 9 + 7 =
5) 8 + 9 =
7) 7 + 5 =
8) 3 + 4 =
11) 5 + 4 =

Try this

☐ + ☐ = 20

Complete this in different ways.

Addition and subtraction trios

A quick way to recall subtraction facts is to know your trios.

11 4 7

$4 + 7 = 11$ $11 - 4 = 7$
$7 + 4 = 11$ $11 - 7 = 4$

8 17 9

$8 + 9 = 17$ $17 - 9 = 8$
$9 + 8 = 17$ $17 - 8 = 9$

Subtraction is the **inverse** of addition.

If you know an addition fact, you can work out a related subtraction fact.

1 Write the answers.

a) 3 8 11

$3 + 8 =$ $11 - 3 =$
$8 + 3 =$ $11 - 8 =$

b) 13 9 4

$9 + 4 =$ $13 - 4 =$
$4 + 9 =$ $13 - 9 =$

c) 7 8 15

$7 + 8 =$ $15 - 8 =$
$8 + 7 =$ $15 - 7 =$

d) 6 11 5

$6 + 5 =$ $11 - 6 =$
$5 + 6 =$ $11 - 5 =$

e) 10 2 8

$2 + 8 =$ $10 - 2 =$
$8 + 2 =$ $10 - 8 =$

f) 9 7 16

$9 + 7 =$ $16 - 7 =$
$7 + 9 =$ $16 - 9 =$

2 Complete these for each trio.

a)

$9 + \square = 14$ $\quad 14 - 9 = \square$

$5 + \square = 14$ $\quad 14 - \square = 9$

b)

$\square + 8 = 15$ $\quad 15 - \square = 7$

$8 + \square = 15$ $\quad \square - 7 = 8$

c)

$7 + \square = 16$ $\quad \square - 7 = 9$

$\square + 7 = 16$ $\quad 16 - \square = 7$

Colour the green light if you found this easy.
Colour the red light if you found it difficult.

3 Complete these.

a) $8 + 6 =$
$14 - 8 =$

b) $9 + 9 =$
$18 - 9 =$

c) $3 + 6 =$
$9 - 3 =$

d) $5 + 7 =$
$12 - 5 =$

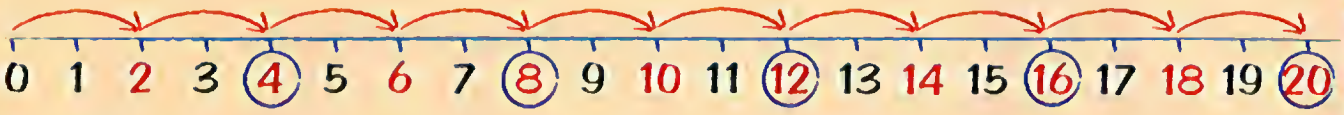
e) $4 + 6 =$
$10 - 4 =$

f) $9 + 2 =$
$11 - 9 =$

g) $5 + 8 =$
$13 - 5 =$

h) $3 + 4 =$
$7 - 3 =$

Multiplication facts for 2 and 4



Counting in 2s gives numbers in the 2 times table.

$2 \times 1 = 2$
$2 \times 2 = 4$
$2 \times 3 = 6$
$2 \times 4 = 8$
$2 \times 5 = 10$
$2 \times 6 = 12$
$2 \times 7 = 14$
$2 \times 8 = 16$
$2 \times 9 = 18$
$2 \times 10 = 20$

The numbers in the 4 times table are **double** the 2 times table.
They are always **even** numbers.

$2 \times 3 = 6$ → double → $4 \times 3 = 12$

$2 \times 5 = 10$ → double → $4 \times 5 = 20$

1 Complete these.

a) $2 \times 5 =$
$4 \times 5 =$

b) $2 \times 2 =$
$4 \times 2 =$

c) $2 \times 3 =$
$4 \times 3 =$

d) $2 \times 10 =$
$4 \times 10 =$

e) $2 \times 6 =$
$4 \times 6 =$

f) $2 \times 9 =$
$4 \times 9 =$

g) $2 \times 8 =$
$4 \times 8 =$

h) $2 \times 7 =$
$4 \times 7 =$

2 Write the next two numbers in each sequence.

a) 2 4 6 ☐ ☐

b) 4 8 12 ☐ ☐

c) 12 14 16 ☐ ☐

d) 12 16 20 ☐ ☐

e) 6 8 10 ☐ ☐

f) 24 28 32 ☐ ☐

g) 10 12 14 ☐ ☐

h) 16 20 24 ☐ ☐

3 Write the answers to these.

a) $2 \times 8 =$ ☐ $4 \times 4 =$ ☐

b) $2 \times 10 =$ ☐ $4 \times 5 =$ ☐

c) $2 \times 6 =$ ☐ $4 \times 3 =$ ☐

d) $2 \times 4 =$ ☐ $4 \times 2 =$ ☐

e) $5 \times 4 =$ ☐ $10 \times 2 =$ ☐

f) $5 \times 6 =$ ☐ $10 \times 3 =$ ☐

Multiplication facts for 3

Remember that 6 × 3 has the same answer as 3 × 6

6 + 6 + 6 = 18
6 × 3 = 18

3 + 3 + 3 + 3 + 3 + 3 = 18
3 × 6 = 18

1 Answer these.

a) 3 × 2 =
2 × 3 =

b) 3 × 5 =
5 × 3 =

c) 3 × 3 =

d) 3 × 10 =
10 × 3 =

e) 3 × 7 =
7 × 3 =

f) 3 × 6 =
6 × 3 =

g) 3 × 9 =
9 × 3 =

h) 3 × 8 =
8 × 3 =

2 Complete these. Learn these facts.

a) $3 \times 1 =$ **b)** $3 \times 2 =$ **c)** $3 \times 3 =$

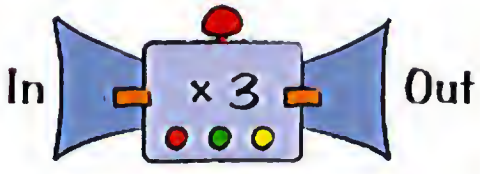
d) $3 \times 4 =$ **e)** $3 \times 5 =$ **f)** $3 \times 6 =$

g) $3 \times 7 =$ **h)** $3 \times 8 =$ **i)** $3 \times 9 =$

j) $3 \times 10 =$

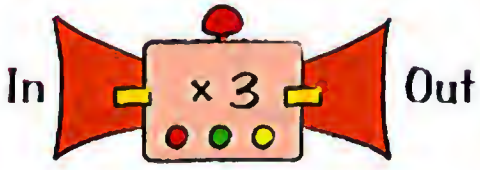
3 Look at these number machines and complete each table of results.

a)



IN	3	7	4	9	6
OUT					

b)



IN					
OUT	6	15	24	3	30

Try this

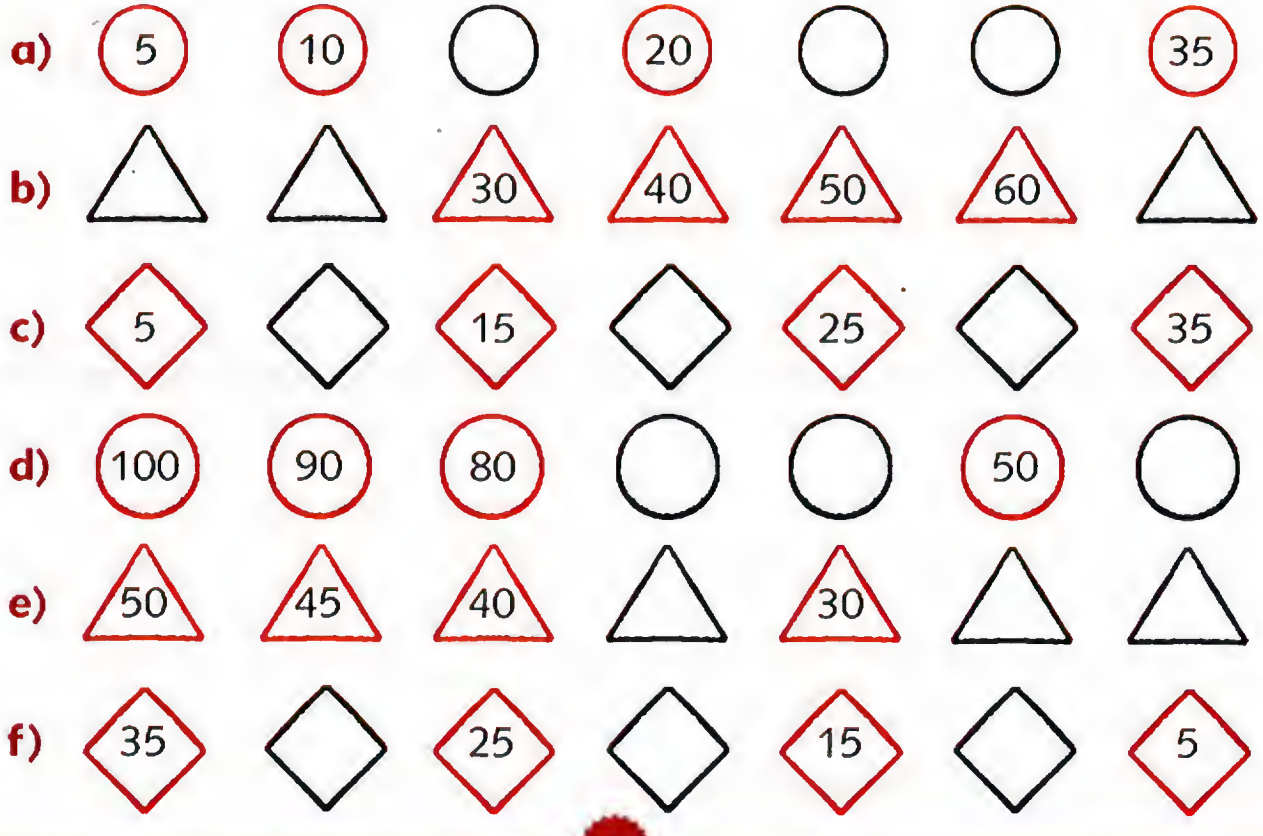
Circle the numbers in the 3 times table.

Multiplying by 5 and 10

The 5 times table and the 10 times table are easy to learn because of the repeated pattern.

$5 \times 1 = 5$
$5 \times 2 = 10$
$5 \times 3 = 15$
$5 \times 4 = 20$
$5 \times 5 = 25$
$5 \times 6 = 30$
$5 \times 7 = 35$
$5 \times 8 = 40$
$5 \times 9 = 45$
$5 \times 10 = 50$

1 Write the missing numbers.



2 Answer these.

a) 5 × 6 =
b) 10 × 4 =
c) 10 × 10 =
d) 5 × 8 =
e) 10 × 2 =
f) 5 × 4 =
g) 5 × 9 =
h) 5 × 5 =
i) 10 × 9 =
j) 5 × 7 =
k) 5 × 3 =
l) 10 × 5 =

3 Complete these.

a) 5 × ☐ = 15
b) 10 × ☐ = 70
c) ☐ × 10 = 40
d) 5 × 2 = ☐
e) 10 × 5 = ☐
f) 5 × ☐ = 35
g) 10 × 9 = ☐
h) ☐ × 5 = 30
i) 10 × ☐ = 60
j) 5 × 9 = ☐
k) 10 × 3 = ☐
l) 8 × 5 = ☐

Assessment

Complete these grids.

a)

+	7		9
	13		15
8	15		
9		14	18

b)

×		3	0
5	10	15	
	20		
4	8		

Subtraction within 99

1 Choose pairs of numbers to complete each of these.

a) $\square - \square = 40$ **b)** $\square - \square = 10$ **c)** $\square - \square = 70$

d) $\square - \square = 30$ **e)** $\square - \square = 20$ **f)** $\square - \square = 50$

2 Answer these.

a)
$$\begin{array}{r} 47 \\ -\ 2 \\ \hline \\ \end{array}$$

b)
$$\begin{array}{r} 59 \\ -\ 4 \\ \hline \\ \end{array}$$

c)
$$\begin{array}{r} 24 \\ -\ 3 \\ \hline \\ \end{array}$$

d)
$$\begin{array}{r} 85 \\ -\ 3 \\ \hline \\ \end{array}$$

e)
$$\begin{array}{r} 68 \\ -\ 4 \\ \hline \\ \end{array}$$

f)
$$\begin{array}{r} 79 \\ -\ 6 \\ \hline \\ \end{array}$$

3 Answer these.

a) What is 37 subtract 24?

b) What is 23 less than 59?

c) What is 56 take away 22?

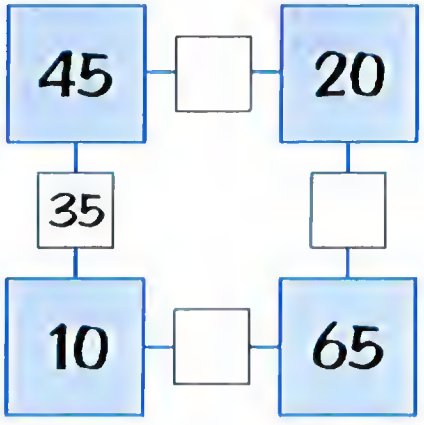
d) What is the difference between 74 and 41?

e) What is 35 subtracted from 58?

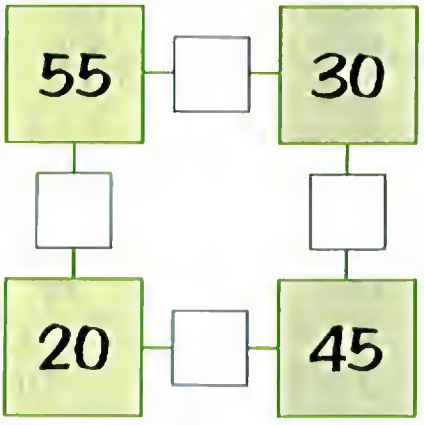
f) What is 94 take away 63?

4 Write the difference between each pair of numbers. One has been done for you.

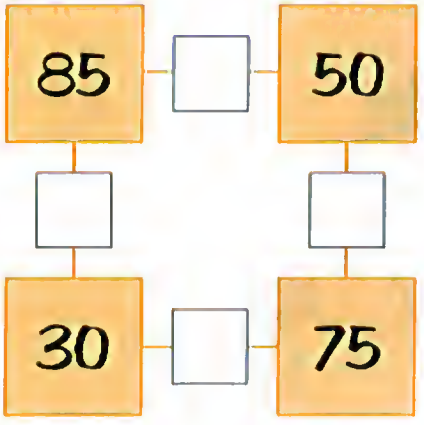
a)



b)



c)



5 Answer these.

a) $\begin{array}{r} 85 \\ -\ 23 \\ \hline \\ \hline \end{array}$

b) $\begin{array}{r} 96 \\ -\ 71 \\ \hline \\ \hline \end{array}$

c) $\begin{array}{r} 59 \\ -\ 35 \\ \hline \\ \hline \end{array}$

d) $\begin{array}{r} 78 \\ -\ 54 \\ \hline \\ \hline \end{array}$

e) $\begin{array}{r} 56 \\ -\ 34 \\ \hline \\ \hline \end{array}$

f) $\begin{array}{r} 79 \\ -\ 52 \\ \hline \\ \hline \end{array}$

Multiplication

1 Count these groups and write the answers.

a) 

3 + 3 + 3 + 3 =

3 × 4 =

b) 

2 + 2 + 2 =

2 × 3 =

c) 

5 + 5 + 5 + 5 + 5 + 5 =

5 × 6 =

d) 

10 + 10 + 10 + 10 + 10 =

10 × 5 =

e) 

4 + 4 + 4 + 4 =

4 × 4 =

f) 

3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 =

3 × 8 =

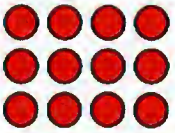
2 Complete each of these.

a) 3 × 5 = ☐

5 × 3 = ☐

b) 4 × 3 = ☐

3 × 4 = ☐



c) $2 \times 6 = \square$

$6 \times 2 = \square$

d) $3 \times 8 = \square$

$8 \times 3 = \square$

3 Complete these.

a) $4 \times \square = 4$

b) $6 \times \square = 0$

c) $\square \times 5 = 0$

d) $\square \times 2 = 2$

e) $10 \times \square = 10$

f) $2 \times \square = 0$

4 Find the answers for each multiplication on this word search.
Each number word is written across or down.
One has been completed for you.

f	o	u	r	s	z	s
t	e	n	f	i	v	e
z	e	r	o	x	p	v
w	f	i	f	t	y	e
f	i	f	t	e	e	n
o	j	d	w	e	x	t
r	t	w	e	n	t	y
t	c	e	l	g	h	t
y	u	k	v	p	m	c
n	i	n	e	j	d	u

10×4

2×2

5×1

4×0

3×3

10×7

3×5

5×2

4×5

3×4

10×5

4×4

Number facts

1 Answer these. Think about the methods you used for each of them.

a) $9 + 8 = \square$

b) $7 - 4 = \square$

c) $6 + \square = 11$

d) $\square - 4 = 4$

e) $11 - \square = 3$

f) $\square + 7 = 14$

g) $18 - 6 = \square$

h) $5 + 9 = \square$

i) $\square + 8 = 15$

j) $12 - \square = 5$

2 Write the addition and subtraction facts from these number cards.

a)

$\square + \square = \square$

$\square + \square = \square$

$\square - \square = \square$

$\square - \square = \square$

b)

$\square + \square = \square$

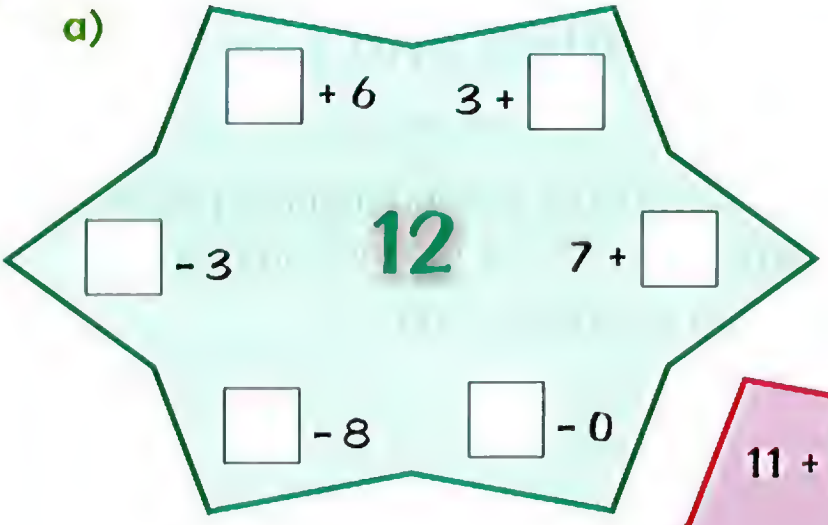
$\square + \square = \square$

$\square - \square = \square$

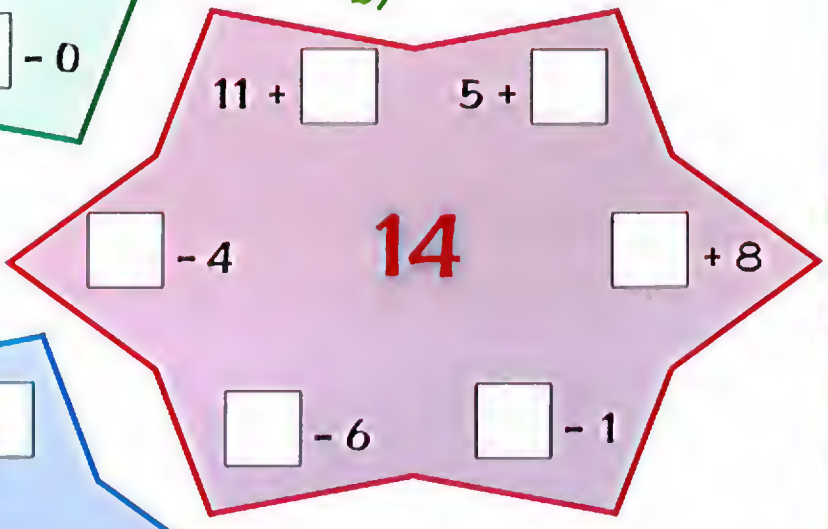
$\square - \square = \square$

3 Write the missing numbers to make the centre number the answer.

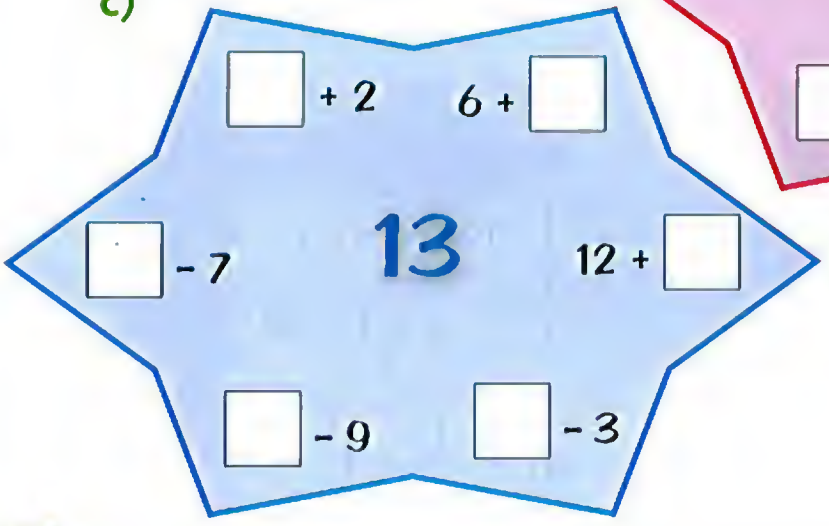
a)



b)

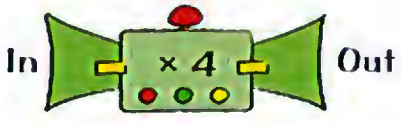


c)



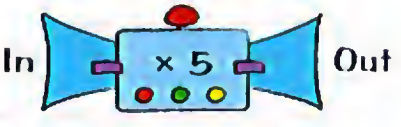
4 Complete the tables to show the numbers going in and out of the number machines.

a)



IN	2		5		6
OUT		12		4	

b)



IN	3	8			5
OUT			10	0	

Missing numbers: addition and subtraction

If you know your trios you can work out missing number problems.
Use the numbers you are given to work out the missing number.

6, 7 and 13 are an addition and subtraction trio.

What is the missing number?

$6 + \square = 13$

$13 - 6 = 7$

So $6 + 7 = 13$

1 Complete these.

a) $7 + ? = 10$

$10 - 7 = \square$

$7 + \square = 10$

b) $? + 4 = 12$

$12 - 4 = \square$

$\square + 4 = 12$

c) $3 + ? = 11$

$11 - 3 = \square$

$3 + \square = 11$

d) $? - 5 = 3$

$5 + 3 = \square$

$\square - 5 = 3$

e) $? - 7 = 7$

$7 + 7 = \square$

$\square - 7 = 7$

f) $? - 4 = 9$

$4 + 9 = \square$

$\square - 4 = 9$

2 Complete these.

a) 40 + ☐ = 70

b) ☐ + 60 = 100

c) ☐ − 30 = 60

d) 40 + ☐ = 90

e) ☐ − 70 = 10

f) 20 + ☐ = 80

g) ☐ − 50 = 50

h) 80 − ☐ = 30

3 Complete these addition grids.

a)

+		4	9
7	10		
		8	
8			17

b)

+	50		20
30		70	
40			
	100		

Try this

☐ − ☐ = 45

What could the missing numbers be?

Multiplication tables

Try to learn these multiplication tables.

×	0	1	2	3	4	5	6	7	8	9	10
2	0	2	4	6	8	10	12	14	16	18	20
3	0	3	6	9	12	15	18	21	24	27	30
4	0	4	8	12	16	20	24	28	32	36	40
5	0	5	10	15	20	25	30	35	40	45	50
10	0	10	20	30	40	50	60	70	80	90	100

Find these.

$4 \times 5 = 20$

$5 \times 4 = 20$

Remember – the order for multiplication does not matter.

1 Answer these.

a) 4×4 **b)** 5×6 **c)** 2×9

d) 3×1 **e)** 10×7 **f)** 8×5

g) 2×0 **h)** 4×6 **i)** 3×3

j) 5×2 **k)** 9×10 **l)** 4×7

2 Multiply these.

a) 3×5	**b)** 2×10	**c)** 7×2	**d)** 4×9
e) 5×7	**f)** 10×8	**g)** 2×2	**h)** 4×0
i) 4×5	**j)** 2×8	**k)** 5×9	**l)** 10×4

3 Follow the instructions to complete this number grid.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30

Colour all the numbers in the 2 times table yellow.
Circle all the numbers in the 3 times table.
Cross through all the numbers in the 5 times table.
What patterns do you notice?

Try this

Complete these by writing the missing numbers.

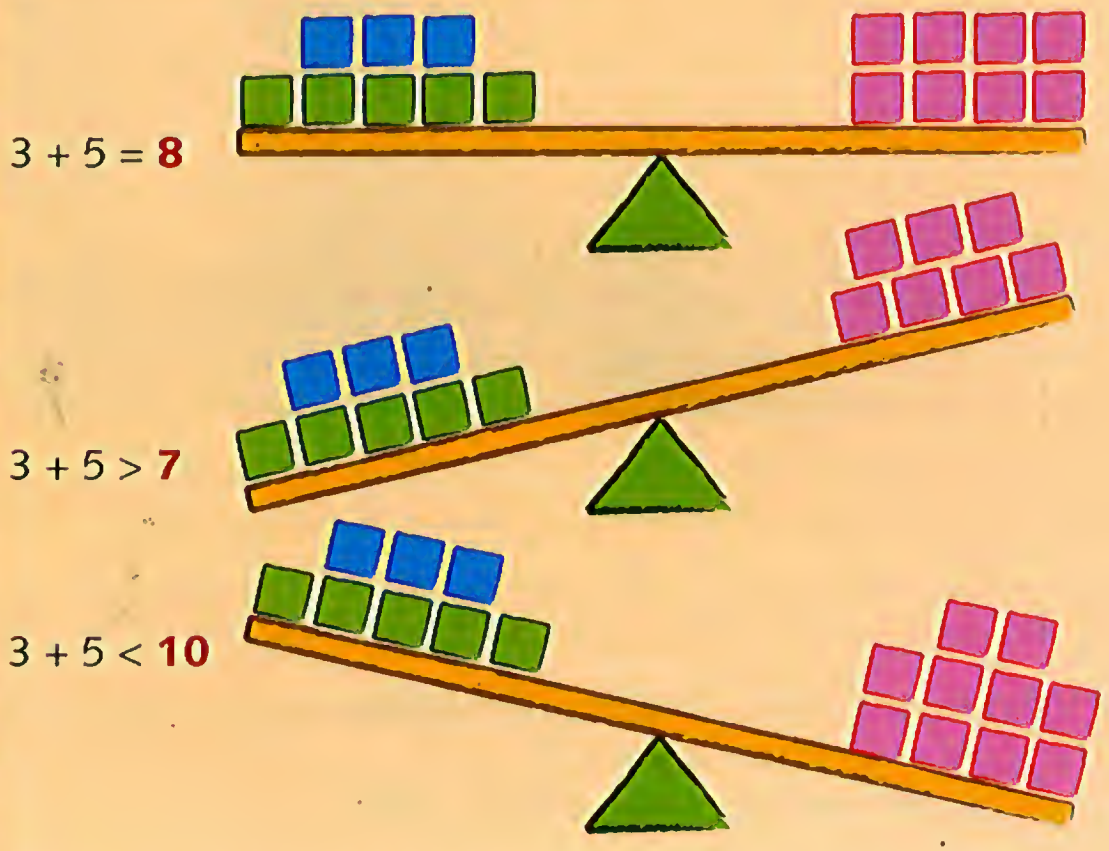
a) $5 \times \square = 50$	**b)** $\square \times 2 = 6$	**c)** $1 \times \square = 4$
d) $\square \times 3 = 15$	**e)** $6 \times \square = 12$	**f)** $\square \times 4 = 32$
g) $3 \times \square = 27$	**h)** $5 \times \square = 0$	

Equalities and inequalities

We use the symbols < , > and = to compare numbers.

= means 'is equal to'.
< means 'is less than'.
> means 'is greater than'.

Look at the symbols used for these:



1 Complete these, putting in the correct symbol: = , < or >.

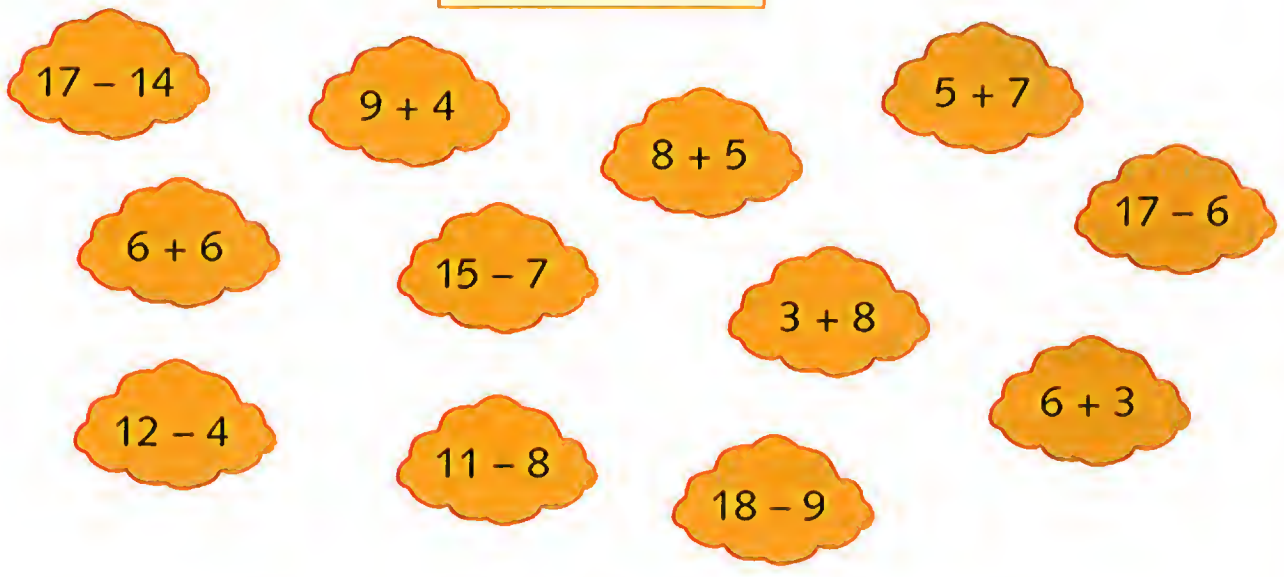
a) 4 + 9 ☐ 15 **b)** 12 – 6 ☐ 4 **c)** 7 + 6 ☐ 13

d) 13 – 4 ☐ 11 **e)** 8 + 6 ☐ 17 **f)** 15 – 9 ☐ 6

g) 9 + 9 ☐ 16 **h)** 17 – 8 ☐ 11

2 Write the pairs of calculations that are equal to each other.

Example
$5 + 7 = 6 + 6$



3 Complete these, putting in the correct symbol: =, < or >.

a) $8 + 9 \square 16$ **b)** $11 - 6 \square 8$ **c)** $5 + 6 \square 13$

d) $18 - 4 \square 14$ **e)** $5 + 9 \square 15$ **f)** $17 - 9 \square 6$

g) $6 + 7 \square 13$ **h)** $15 - 8 \square 6$

Try this

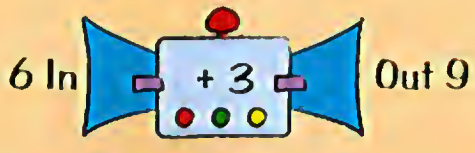
Use each of the numbers 5, 6, 7, 8, 9 and 10 to fill in the six missing numbers.

$\square + \square = 15$ $\square + \square > 15$ $\square + \square < 15$

Can you find different ways to complete this?

Function machines

This is an 'add 3' machine.



When 6 goes in to the machine, 9 comes out. $6 + 3 = 9$

If the numbers go backwards through this machine, the + becomes a –.

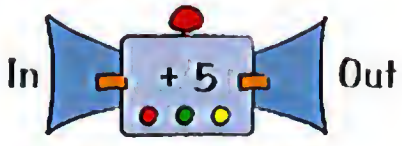
If 9 is the number coming out of this machine, subtract 3 and the number going in is 6.

$9 - 3 = 6$

Try this with other numbers going in and out of the + 3 machine.

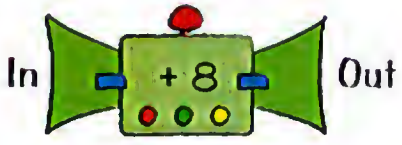
1 Complete the tables to show the numbers coming out of each machine.

a)



IN	4	1	10	3	7
OUT	9				

b)



IN	3	9	11	2	12
OUT	11				

c)

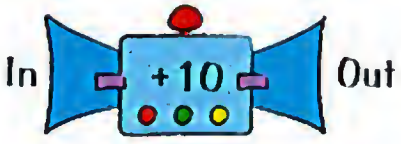
IN	6	3	9	15	11
OUT	4				

d)

IN	10	18	12	17	13
OUT	4				

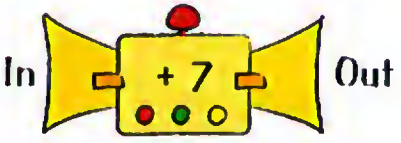
2 Complete the tables to show the numbers going in to each machine.

a)



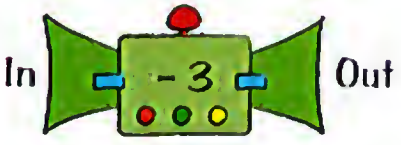
IN	5				
OUT	15	19	11	20	12

b)



IN	4				
OUT	11	19	8	14	9

c)



IN	7				
OUT	4	2	6	12	17

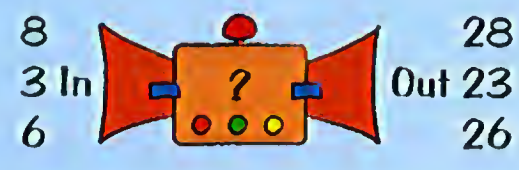
d)

IN	12				
OUT	7	6	2	9	11

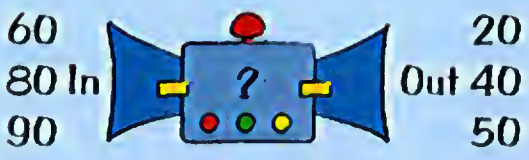
Try this

What are these function machines?

a)



b)



Logic problems

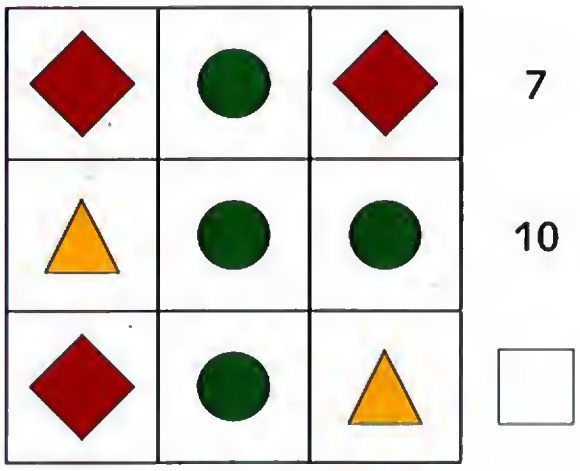
Logic problems need some careful thinking.
Read each problem slowly so you understand it.
Then work out a way to solve the problem.

1 Each shape stands for a number.

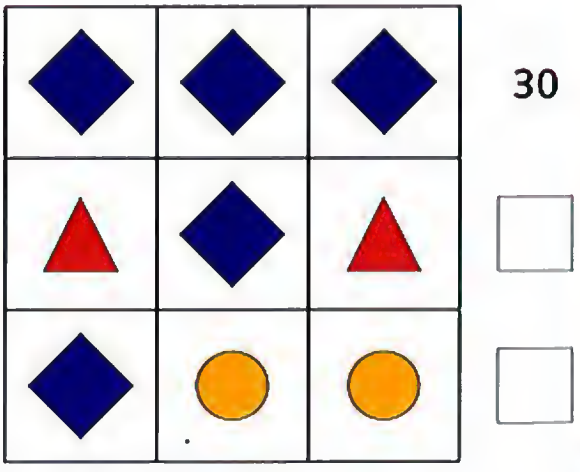
The numbers shown are the totals of the three shapes in the row or column.

Find out which number each shape represents and find the other totals.

a)

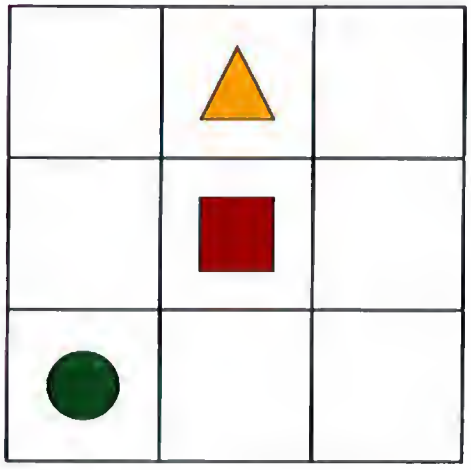


b)



2 Each shape stands for a number.

The numbers shown are the totals of the line of shapes.
Draw the shapes on the grid so that the totals are correct.



6

11

13

10 8 12

Key

= 3

= 5

= 2

Assessment

1 What are the missing numbers?

a) 14 + ☐ = 20 **b)** ☐ + 9 = 13 **c)** 15 − ☐ = 7

d) ☐ − 8 = 12 **e)** 7 × ☐ = 21 **f)** ☐ × 6 = 12

2 Write the correct signs, <, > or =, for these.

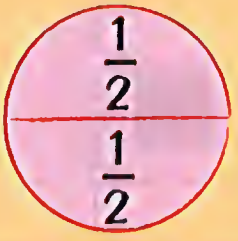
a) 6 + 2 ☐ 12 − 4 **b)** 3 × 2 ☐ 2 + 3 **c)** 15 − 9 ☐ 4 + 8

Halves and quarters

This is one whole.

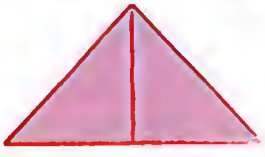
One-quarter is written as $\frac{1}{4}$.
Four quarters make a whole.

One-half is written as $\frac{1}{2}$.
Two halves make a whole.



Fractions are **equal** parts of a whole.
Both shapes are in two parts.
Only one shape is cut in half, it has two **equal** parts.

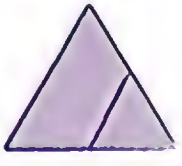
1 Write $\frac{1}{2}$ or **not** $\frac{1}{2}$ for each of these.

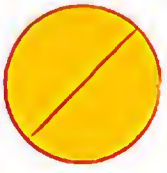
a) 

b) 

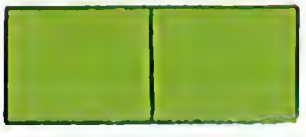
c) 

d) 

e) 

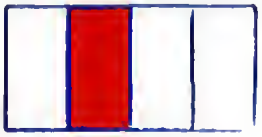
f) 

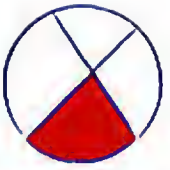
g) 

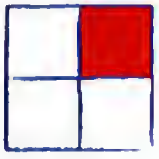
h) 

2 Which of these shapes has exactly $\frac{1}{4}$ shaded red?

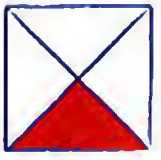
a) 

b) 

c) 

d) 

e) 

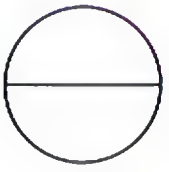
f) 

3 Find the shapes that are divided into quarters. Colour $\frac{1}{4}$ red.

Find the shapes that are divided into halves. Colour $\frac{1}{2}$ blue.

a) 

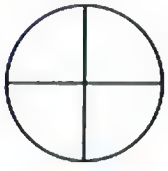
b) 

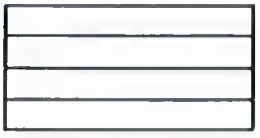
c) 

d) 

e) 

f) 

g) 

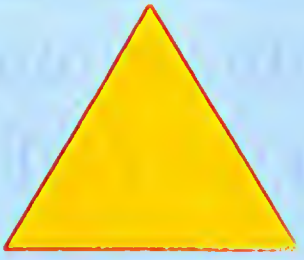
h) 

i) 

Try this

Draw and cut out a triangle the same as this.
Try to fold the triangle to make 4 equal parts.

Colour $\frac{1}{4}$ of your triangle.



Halves of amounts

Use these two steps to find one-half of an amount.

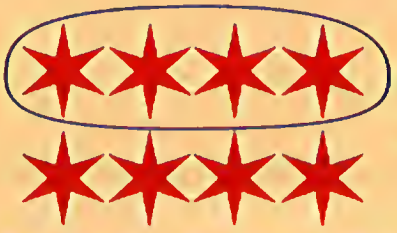
1 Put it into **two** equal groups.

2 Count **one** of the groups.

What is one-half of 8?

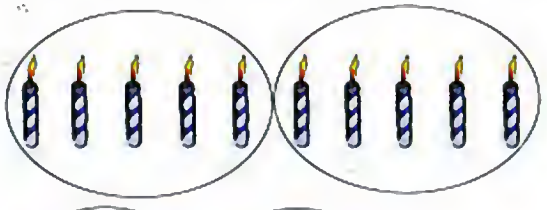
8 stars

2 equal groups

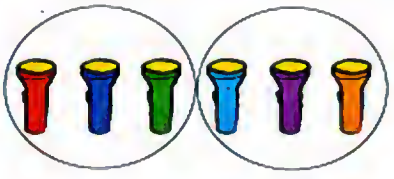


$\frac{1}{2}$ of 8 is 4

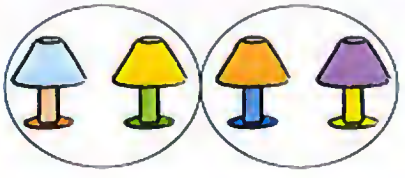
1 Each set has been divided into two equal groups. Count one of the groups to find how many in one half.

a) 

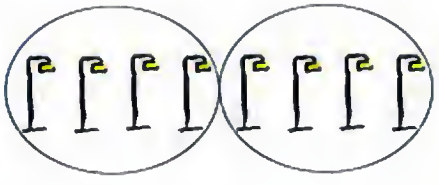
$\frac{1}{2}$ of 10 is ☐

b) 

$\frac{1}{2}$ of 6 is ☐

c) 

$\frac{1}{2}$ of 4 is ☐

d) 

$\frac{1}{2}$ of 8 is ☐

2 Draw circles to put these items into 2 equal groups.
Count one of the groups to find how many in one half.

a) 

$\frac{1}{2}$ of 6 is ☐

b) 

$\frac{1}{2}$ of 2 is ☐

c) 

$\frac{1}{2}$ of 12 is ☐

d) 

$\frac{1}{2}$ of 8 is ☐

e) 

$\frac{1}{2}$ of 4 is ☐

f) 

$\frac{1}{2}$ of 10 is ☐

3 Draw a circle round $\frac{1}{2}$ of the beads in each group. Write how many.

a) 

$\frac{1}{2}$ of 12 is ☐

b) 

$\frac{1}{2}$ of 6 is ☐

c) 

$\frac{1}{2}$ of 14 is ☐

d) 

$\frac{1}{2}$ of 20 is ☐

e) 

$\frac{1}{2}$ of 16 is ☐

f) 

$\frac{1}{2}$ of 24 is ☐

One-quarter of amounts

To find one-quarter of an amount:

1 Put it into **four** equal groups.

2 Count **one** of the groups.

What is one-quarter of 8?

8 stars

4 equal groups

$\frac{1}{4}$ of 8 is 2

1 Each set has been divided into four. Count one group to find how many are in one-quarter.

a)  $\frac{1}{4}$ of 20 is ☐

b)  $\frac{1}{4}$ of 12 is ☐

c)  $\frac{1}{4}$ of 4 is ☐

d)  $\frac{1}{4}$ of 16 is ☐

2 Divide each plate of bread into four equal groups. Count how many are in one-quarter.

a) 

$\frac{1}{4}$ of 8 =

b) 

$\frac{1}{4}$ of 20 =

c) 

$\frac{1}{4}$ of 16 =

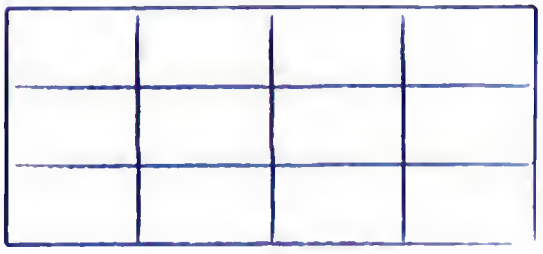
d) 

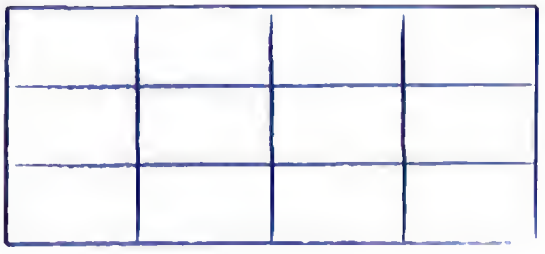
$\frac{1}{4}$ of 12 =

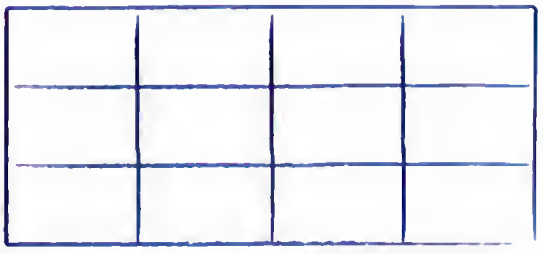
e) 

$\frac{1}{4}$ of 4 =

3 Colour $\frac{1}{4}$ of each pattern. Make each pattern different.





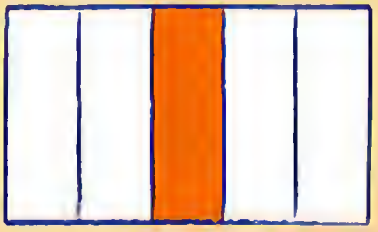


$\frac{1}{4}$ of 12 = ☐

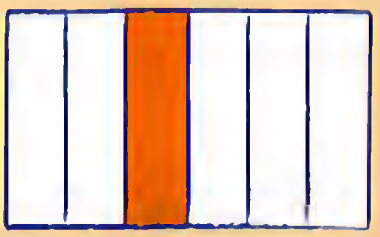
Fractions of shapes

Look at the numbers at the bottom of each of these fractions.
They tell you how many equal parts the shape is divided into.

$\frac{1}{3}$



$\frac{1}{5}$



$\frac{1}{6}$

Thirds: $\frac{1}{3}$ is one part.

Fifths: $\frac{1}{5}$ is one part.

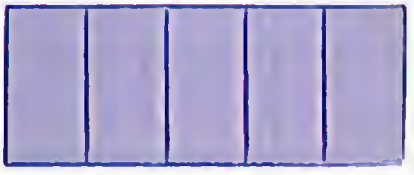
Sixths: $\frac{1}{6}$ is one part.

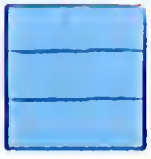
1 What fractions are shown by each of these shapes?
Choose from the list of fractions.

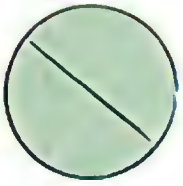
half	third	quarter	fifth	sixth

a) 

b) 

c) 

d) 

e) 

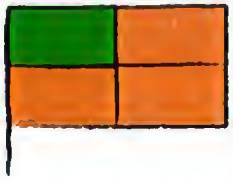
2 Draw lines to match each statement to the correct picture and fraction name.

2 equal parts		thirds
3 equal parts		fifths
4 equal parts		halves
5 equal parts		sixths
6 equal parts		quarters
10 equal parts		tenths

3 Write the fraction of each flag coloured green.

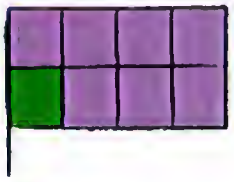
Example

$\frac{1}{2}$

a) 

b) 

c) 

d) 

e) 

Try this

Design your own flag so that $\frac{1}{4}$ of it is red and $\frac{1}{2}$ of it is yellow.
What fraction of the flag is a different colour?

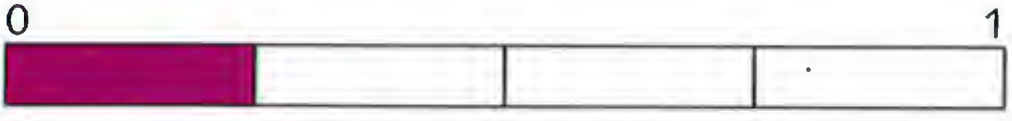
Fractions on a number track

Fractions are parts of a whole number.
They can be shown as a fraction wall.

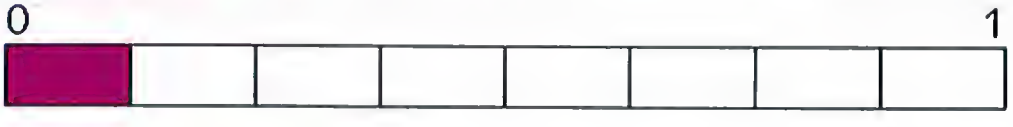
1 Write the fraction shown on each number track.

a)

b)



c)



d)

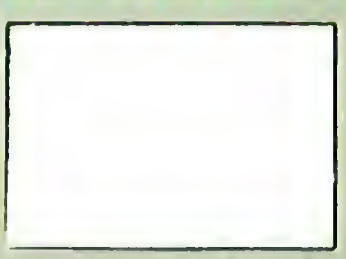
e)

2 Write the fractions in the correct part of this fraction wall.

$\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{6}$ $\frac{1}{8}$ $\frac{1}{3}$

Assessment

Draw and cut out six rectangles.



Fold each of them and colour one part to show the following fractions:

$\frac{1}{2}$ $\frac{1}{3}$ $\frac{1}{4}$ $\frac{1}{5}$ $\frac{1}{6}$ $\frac{1}{8}$

Unit 11 Time

O'clock

These two clocks both show 7 o'clock.

- The long minute hand is pointing to 12, so it is an **o'clock** time.
- The short hour hand is pointing to 7, so it is **7 o'clock**.

This is a **digital** clock.

- When you see :00 it is an **o'clock** time.
- The number in front is 7: so it is **7 o'clock**.

1 Write the matching digital time for each of these clocks.

a) 

b) 

c) 

d) 

e) 

f) 

2 Complete the time for each clock.

a)  ☐ o'clock

b)  ☐ o'clock

c)  ☐ o'clock

d)  ☐ o'clock

e)  ☐ o'clock

f)  ☐ o'clock

3 Draw the times on these clocks.

a) 

b) 

c) 

d) 

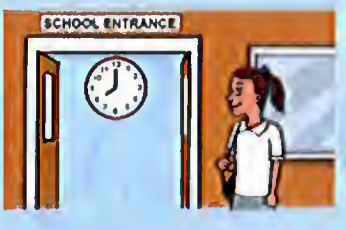
e) 

f) 

g) 

Try this

This is a typical day for Deema. Complete her diary entry.



Today I got up at ___ o'clock. I arrived at school at ___ o'clock.
After school at ___ o'clock I played with my friends.
I collected grandmother's eggs at ___ o'clock and then went home.
We ate at ___ o'clock.

Half past

These two clocks both show half past 7.

Notice that the hour hand has moved a little past 7.
The long minute hand is pointing to the 6 and is half-way round the clock.

- There are 60 minutes in an hour.
- 30 minutes past an hour is half-way between the hours.

So 7.30 is half past 7.

Half past

1 Write the times as they would be seen on a digital clock.

Example

2:30

a) 

b) 

c) 

d) 

e) 

f) 

g) 

h) 

2 Draw a line to match pairs of clocks with the same time.

3 Complete each of the times on these clocks.

a)

half past ☐

b)

half past ☐

c)

half past ☐

d)

half past ☐

e)

half past ☐

f)

half past ☐

Quarter to/past

8 o'clock

quarter past 8

half past 8

quarter to 9

9 o'clock

quarter to the next hour

quarter past the hour

We sometimes use **quarter past** and **quarter to** when telling the time.

- 'quarter past' is 15 minutes past an hour.
- 'quarter to' is 45 minutes past an hour, or 15 minutes to the next hour.
- Remember – there are 60 minutes in an hour.

1 Write these times using quarter past or quarter to.

a) 

b) 

c) 

d) 

e) 

f) 

g) 

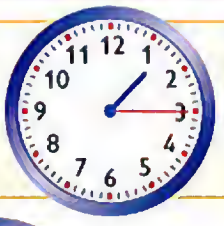
h) 

i) 

j) 

2 Write these times as they would be seen on a digital clock.

Example



1:15

a)

b)

c)

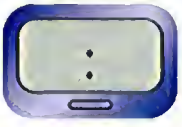
d) quarter to eleven

e) quarter past ten

f) quarter to nine

3 Write the times on these digital clocks to show each time.

a) four o'clock



b) quarter past twelve

c) half past eleven

d) quarter to six

4 Write the times on these digital clocks to show each time.

a)

b)

c)

d)

Try this

How many minutes are there between these times?

a)

b)

c)

d)

Days and months

There are the 7 days in 1 week:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

The week begins on Sunday.

We use two calendars to show the months. For both there are 12 months in the year.

Gregorian calendar		Hijri calendar or Islamic calendar	
1	January	1	Muharram
2	February	2	Safar
3	March	3	Rabi' al-awwal
4	April	4	Rabi' al-thani
5	May	5	Jumada al-awwal
6	June	6	Jumada al-thani
7	July	7	Rajab
8	August	8	Sha'aban
9	September	9	Ramadan
10	October	10	Shawwal
11	November	11	Dhu al-Qi'dah
12	December	12	Dhu al-Hijjah

1 Write these months in the correct order.

a) June August July May

b) March January April February

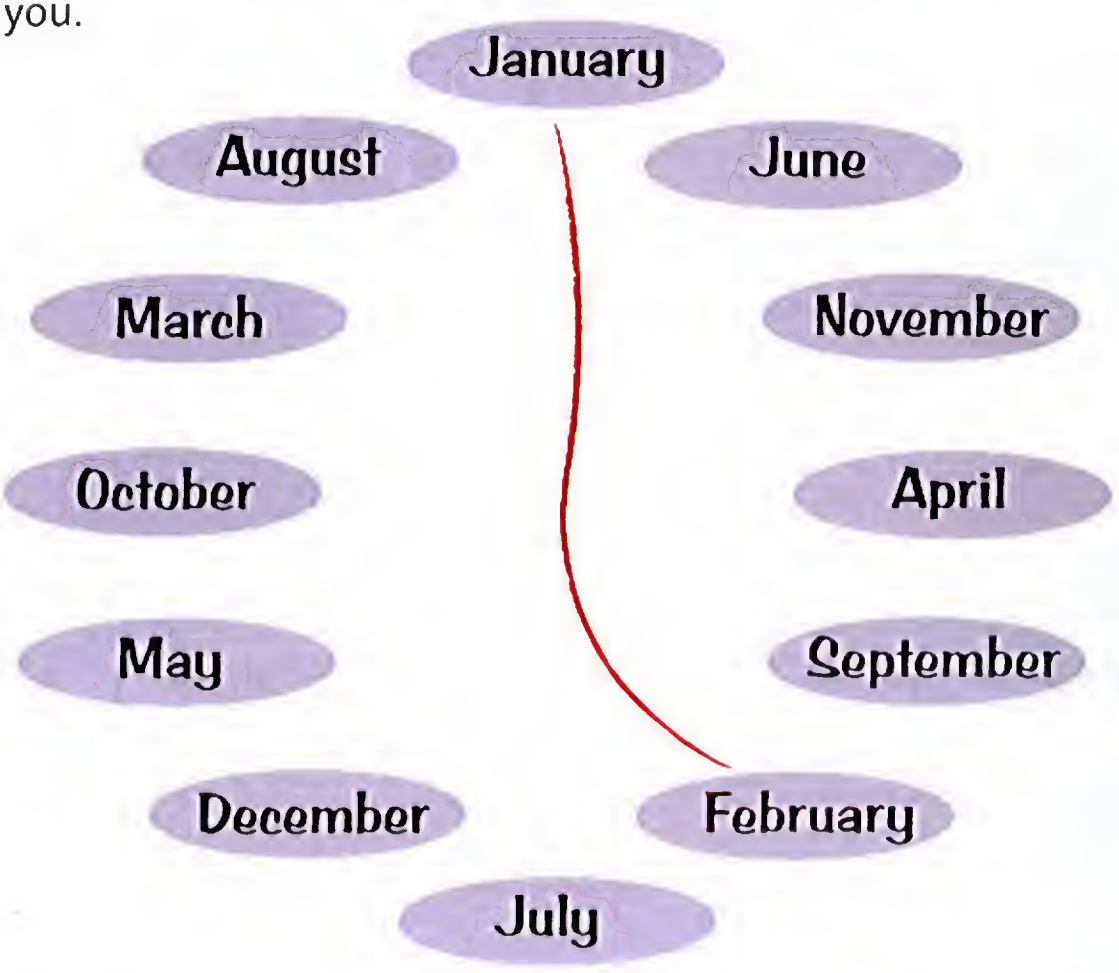
c) November October September December

d) Sha'aban Jumada al-thani Rajab Jumada al-awwal

e) Safar Muharram Rabi' al-thani Rabi' al-awwal

f) Dhu al-Hijjah Ramadan Dhu al-Qi'dah Shawwal

2 Join these months of the year in order. The first two have been done for you.



3 This calendar shows one week in March. Look at the calendar to answer each question.

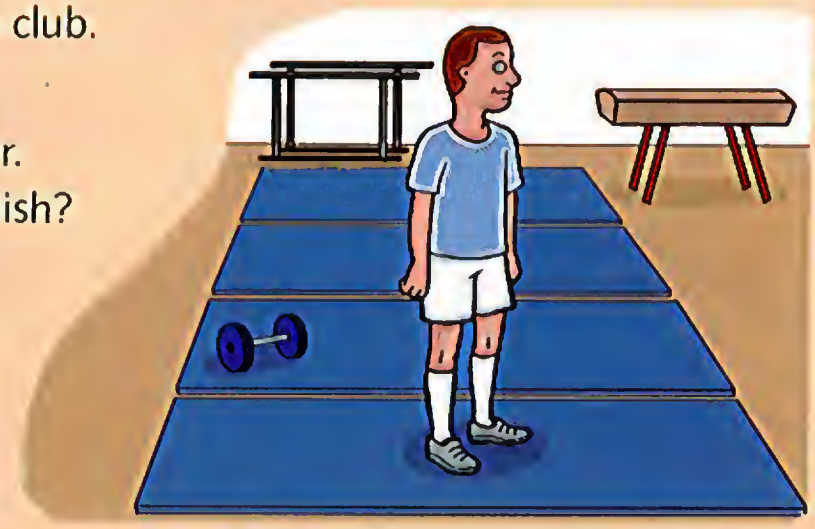
March						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
7	8	9	10	11	12	13

a) What day of the week is 11th March?
b) What day of the week is 9th March?
c) If today is Friday, what day will it be tomorrow?
d) David's Aunt is visiting on 13th March. What day will she visit?
e) Today is Monday, Ali's birthday is in 3 days' time. What day is his birthday?
f) What day of the week is 15th March?

Time problems

Gamil goes to a gym club.

It starts at 4:00 and finishes $1\frac{1}{2}$ hours later.
What time does it finish?



Start →  → 1 hour later  → $\frac{1}{2}$ hour later  → Finish

4:00
4 o'clock

5:00
5 o'clock

5:30
Half past 5

1 Read and answer these.

a) Mustafa's family leave home at 7 o'clock in the morning and drive to Cairo. They arrive at 9 o'clock. How long had they been driving?

b) A film started at 6.30 and finished at 8.00. How long was the film?

c) Bread is put in the oven at 2 o'clock and takes half an hour to cook. What time must the bread be taken out of the oven?

d) A television programme starts at 5.15 and finishes at 6.00. How long is the programme?

e) Falak leaves home at eight thirty and arrives at school at nine o'clock. How long does it take her to walk to school?

f) A football match lasts for $1\frac{1}{2}$ hours. The match starts at 3 o'clock. What time will it finish?

g) Hanya is having a party from 7.00 to 9.30. How long is the party?

h) Samir can play for an hour. It is now quarter past one. What time must he finish playing?

2 Draw the later time for each clock.

a)  1 hour later → 

b)  2 hours later → 

c)  30 minutes later → 

d)  30 minutes later → 

e)  30 minutes later → 

f)  30 minutes later → 

g)  30 minutes later → 

h)  1 hour 30 minutes later → 

Assessment

1 Write the times shown on these clocks.

a) 

b) 

c) 

d) 

2 Write the 12 months in order.

a) March October April November August December
January February May September July June

b) Rajab Rabi' al-thani Safar Dhu al-Hijjah Sha'aban
Jumada al-awwal Muharram Ramadan Shawwal
Jumada al-thani Dhu al-Qi'dah Rabi' al-awwal

Unit 12 Assess and review

Equations and functions

1 Complete these.

a) 7 + ◯ = 18

b) ⬡ + 12 = 20

c) ⬡ − 14 = 4

d) 15 + ◯ = 18

e) 19 − □ = 11

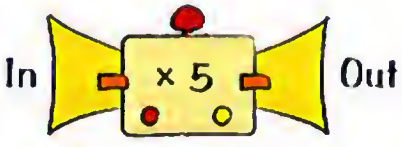
f) 50 + ⬡ = 90

g) ◯ − 30 = 30

h) 70 − □ = 60

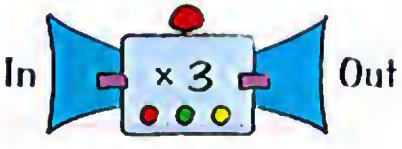
2 Write the numbers coming out of these multiplying machines.

a)



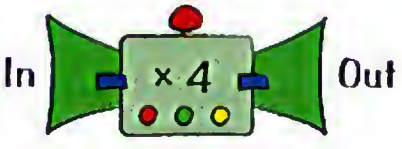
IN	3	1	10	5	6
OUT	15				

b)



IN	2	9	4	0	9
OUT	6				

c)



IN	3	5	2	7	1
OUT	12				

3 Use each of the numbers 2, 4, 6, 8, 10 and 12 to fill in the six missing numbers.

☐ + ☐ = 18 ☐ + ☐ > 18 ☐ + ☐ < 18

Can you find different ways to complete this?

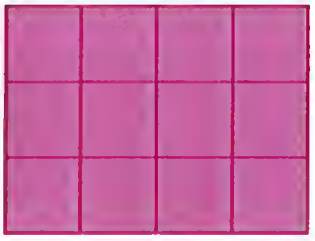
4 Use each of the numbers 3, 5, 7, 9, 11 and 13 to fill in the six missing numbers.

☐ + ☐ = 16 ☐ + ☐ > 16 ☐ + ☐ < 16

Can you find different ways to complete this?

Fractions

1 Cut out a grid of 12 squares from squared paper.



a) Fold the grid in half and count the squares in one-half.

$\frac{1}{2}$ of 12 = ☐

b) Open the grid out. Fold it in quarters and count the squares in one-quarter.

$\frac{1}{4}$ of 12 = ☐

c) Open the grid out. Fold it in thirds and count the squares in one-third.

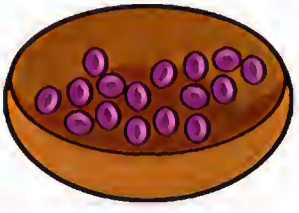
$\frac{1}{3}$ of 12 = ☐

2 Divide each bowl of fruit into equal groups. Count how many are in one-half or one-quarter.

a)

$\frac{1}{2}$ of 6 = ☐

b)

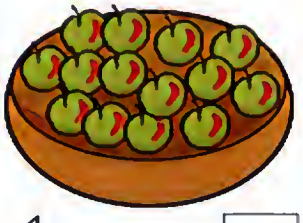


$\frac{1}{4}$ of 16 = ☐

c)

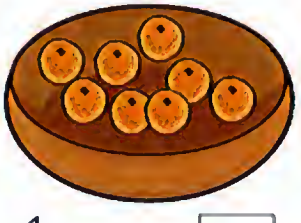
$\frac{1}{4}$ of 20 = ☐

d)



$\frac{1}{2}$ of 14 = ☐

e)



$\frac{1}{4}$ of 8 = ☐

3 What fractions are shown by each of these shapes?
Choose from the list of fractions.

half	third	quarter	fifth	sixth

a) 

b) 

c) 

d) 

e) 

4 Look at the fractions shaded in each shape. Draw a line to join each shape to the matching fraction and fraction word.

$\frac{1}{4}$ 

$\frac{1}{2}$ 

$\frac{1}{3}$ 

$\frac{1}{6}$ 

$\frac{1}{5}$ 

one-sixth

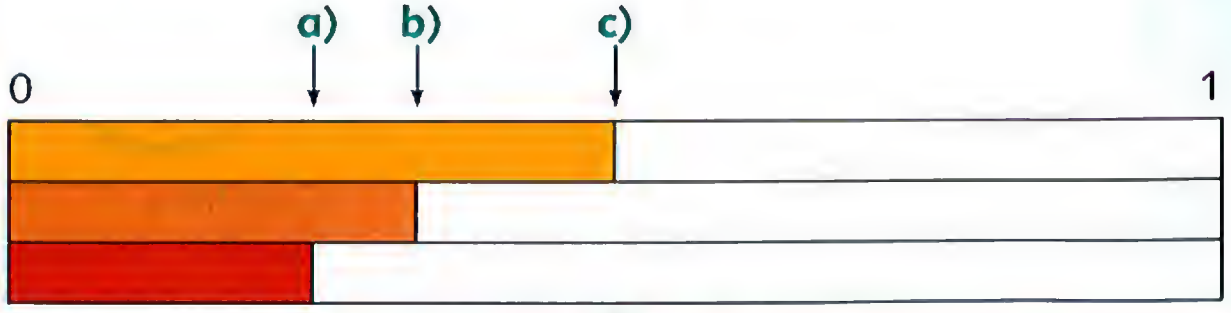
one-third

one-quarter

one-half

one-fifth

5 What fractions are shown on this number line?



Time

1 Draw hands on these clocks to show these times.
Remember to draw the hour hand shorter than the minute hand.

a) 8.00

b) 1.30

c) 7.15

d) 10.45

e) quarter past nine

f) half past three

g) eleven o'clock

h) quarter to two

2 What is the time one hour later than each of these?

a)

One hour later is ☐

b)

One hour later is ☐

c)

One hour later is ☐

d)

One hour later is ☐

e)

One hour later is ☐

f)

One hour later is ☐

3 These are from a school timetable.
Write the time taken for each of these.

a) English lessons start at 9.00 and finish at 9.45.

b) Maths lessons start at 9.45 and finish at 10.15.

c) Science lessons start at half past 10 and finish at quarter past 11.

d) Art classes are from 11.15 to 12.15.

e) Lunch is between quarter past 12 and 1 o'clock.

f) Sport is from one o'clock to half past two.

4 Write these months in order.

a) March April June January February May

b) Dhu al-Qi'dah Ramadan Dhu al-Hijjah
Rajab Sha'aban Shawwal

Try this

Make a list of all the birthday months of your friends and family.
Which is the most popular month? Are there any months with no birthdays?

Macmillan Education
4 Crinan Street
London N1 9XW
A division of Macmillan Publishers Limited
Companies and representatives throughout the world.

ISBN 978-0-230-02818-0

Designed by Andy Magee Design
Typeset by Tek-Art, Crowley Down, West Sussex
Illustrated by Tek-Art
Cover design by Bigtop Design Limited

Printed and bound in Malaysia

2017 2016 2015
12 11 10 9 8

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